

Scientific Research and Innovation Services Assay Repertoire

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Took Decembring	Epic test	Comula			cytokine panels (UKAS ac		Method	Reference	Units	Francis	Guide TA	
Test Description	code	type	Sample tube	Minimum volume	Processing requirements (pre-analysis)	Storage requirements (pre-analysis)	ivietnoa	ranges	Units	Frequency	Guide 1A	
Cytokine Panel CY19 - Interleukin 1 beta (IL-1 β), Interleukin 6 (IL-6), Interleukin 8 (IL-8) & Tumour necrosis factor alpha (TNF- α).	CRD0238							IL-1b: 0.00 - 0.66 IL-6: 0.00 - 3.26 IL-8: 2.20 - 21.87 TNFa: 6.10 - 13.58				
Cytokine Panel CY20 - Interferon gamma (IFN-γ), Interleukin 10 (IL-10), Interleukin 17A (IL-17A) & Interleukin 2 receptor alpha chain (IL-2RA).	CRD0239	Blood	SST	500uL	Allow samples to clot for 30 - 60 minutes at room temperature or up to 8 hours at 4° C.	Centrifuge sample on site and send to KCH with a cool pack within 2 hours OR	Protein Simple Ella	IFN-γ: 0.00 - 1.76 IL-10: 0.96 - 3.20 IL-17: 0.00 - 2.10 IL-2RA: 424.00 - 1844.00	pg/mL	Batches of 29	1 week	
Cytokine Panel CY21 - Chemokine ligand 2/monocyte chemoattractant protein 1 (CCL2/MCP-1), Granulocyte macrophage colony-stimuLating factor (GM-CSF), Interleukin 15 (IL-15) & Vascular endothelial growth factor A (VEGF-A)		(serum)	551	Sout	Centrifugation for 15 min at 1000×g. Aliquot and store at -80°C.	Separate serum into 3 aliquots, store frozen at -20°C and courier frozen on dry ice within 24 hours	Simple Ella	CCL2/MCP-1: 63.98 - 514.36 GM-CSF: 0.00 - 6.32 IL-15: 0.00 - 5.41 VEGF-A: 0.00 - 450.64	b8/IIIT	Batches of 11	1 week	
Cytokine Panel CY23 - Interleukin 5 (IL-5) & Interleukin 13 (IL-13)	CRD0242			Re	esearch-only cytokine pa	nels		IL-5: 0.00-3.55 IL-13: 0.00 – 80.1			2 weeks	
Cytokine Panel CY24 - Interferon gamma (IFN-γ), nterleukin 10 (IL-10), Interleukin 5 (IL-5), Interleukin 6 (IL-6) & Tumour necrosis factor alpha (TNF-α).	CRD0243							IFN-γ: 0.00-1.76 IL-10: 0.96 - 3.20 IL-5: 0.00-3.55 IL-6: 0.00 - 3.26				
Cytokine Panel CY25 - Interleukin-1 receptor antagonist (IL-1RA), Interleukin-1 beta (IL-1β), nterleukin 6 (IL-6) & GranuLocyte-macrophage colony- stimuLating factor (GM-CSF)	CRD0296	Blood (serum)		SST	500uL	Allow samples to clot for 30 - 60 minutes at room temperature or up to 8 hours at 4°C. Centrifugation for 15 min at 1000×g.	Centrifuge sample on site and send to KCH with a cool pack within 2 hours OR Separate serum into 3	Protein Simple Ella	TNFa: 6.10 - 13.58 IL-1RA: 225.00-682.00 IL-1b: 0.00 - 0.66 IL-6: 0.00 - 3.26 GM-CSF: 0.00 - 6.32	pg/mL	On request	N/A
Y26 Cytokine Panel - Interleukin-5 (IL-5), Interleukin-3 (IL-13), Interleukin-17 (IL-17), Interleukin-22 (IL-22), Interferon gamma (IFN-γ), GranuLocyte-macrophage colony-stimuLating factor (GM-CSF) & Tumour necrosis factor alpha (TNF-α)			SST		Aliquot and store at -80°C.	aliquots, store frozen at -20°C and courier frozen on dry ice within 24 hours		IL-5: 0.00-3.55 IL-13: 0.00 – 80.10 IL-17: 0.00 - 2.10 IL-22: 0.0-30.70 IFN-y: 0.00-1.76 GM-CSF: 0.0 - 6.32				
CY27 Cytokine Panel (IL-2, IL-7)	CRD0308						TNFa: 6 10 - 13 58 TBC					

Other research tests

type tube volume (pre-analysis) (pre	NB: May require validation, not always immediately available, this list is not exhaustive, please contact us to enquire about any other test you require Test Description Test Description Fig. test Sample Sample Minimum Processing requirements Storage requirements Method Reference Units Frequence Frequence												
1,5-anhydroglucitol 1,5-an		Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT	
Solution		code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges				
or plasma) N/A Blood (serum or plasma) Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. 17-OH-Progesterone N/A Blood (serum or plasma) N/A plasma N/A plasma N/A plasma N/A Blood (serum or plasma) N/A plasma N/A plasma	1,5-anhydroglucitol	12371006	Blood	SST or	500uL	Serum - allow samples to clot for 30	2-8°C for 7 days	Glycomark kit	Males: 10.7-32.0	ug/mL	On request	N/A	
Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. 17-OH-Progesterone N/A Blood (serum plasma) or plasma) Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. The usual precautions for venipuncture should be observed. It is important to preserve the chemical integrity of a blood specimen from the moment it is collected until it is assayed. Do not use grossly hemolytic, icteric or grossly lipemic 25-hydroxyvitamin D2 25-hydroxyvitamin D3 HAE0143 25-hydroxyvitamin D (D2+D3) - Total Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. Pass C for 7 days (IBL kit) FollicuLar phase - 0.3-1.0 Luteal phase - 0.2-2.9 Post ACTH stim On request N/ On request N/ On request		55	(serum	EDTA		minutes at room temperature, centrifuge	-20°C for longer storage,		Females: 6.8-29.3				
at 1000 x g within 30 minutes of collection. 17-OH-Progesterone N/A Blood (serum EDTA or plasma) plasma plasma plasma plasma 25-hydroxyvitamin D2 25-hydroxyvitamin D3 HAE0142 25-hydroxyvitamin D (D2+D3) - Total ANA Blood (serum EDTA or plasma) Plasma Plasma Plasma Plasma See: https://www.synnovis.co.uk/our-tests/25-oh-vitamin-d At 1000 x g within 30 minutes of collection. The usual precautions for venipuncture should be observed. It is important to preserve the chemical integrity of a blood specimen from the moment it is collected until it is assayed. Do not use grossly hemolytic, icteric or grossly lipemic See: https://www.synnovis.co.uk/our-tests/25-oh-vitamin-d On request N/ 2-8°C for 7 days -20°C (Aliquots) for 3 months Keep away from heat or direct sunlight. Avoid repeated freeze-thaw cycles. Ututal phase - 0.3-1.0 Luteal phase - 0.2-2.9 Post ACTH stim On request N/ On request N/			or	plasma		for 15 minutes at 1000 x g.	samples my be freeze thawed		All: 9.7-31.4				
17-OH-Progesterone N/A Blood (serum EDTA or plasma)			plasma)			Plasma - Centrifuge for 15 minutes	up to three times.						
(serum EDTA plasma) preserve the chemical integrity of a blood specimen from the moment it is collected until it is assayed. Do not use grossly hemolytic, icteric or grossly lipemic specimen D2 25-hydroxyvitamin D2 HAE0142 25-hydroxyvitamin D3 HAE0143 25-hydroxyvitamin D (D2+D3) - Total HAE0261 (serum EDTA plasma preserve the chemical integrity of a blood specimen from the moment it is collected until it is assayed. Do not use grossly hemolytic, icteric or grossly lipemic specimen from the moment it is collected sunlight. Avoid repeated freeze-thaw cycles. See: https://www.synnovis.co.uk/our-tests/25-oh-vitamin-d On request N/						at 1000 x g within 30 minutes of collection.							
(serum EDTA plasma) preserve the chemical integrity of a blood specimen from the moment it is collected until it is assayed. Do not use grossly hemolytic, icteric or grossly lipemic specimen D2 25-hydroxyvitamin D2 HAE0142 25-hydroxyvitamin D3 HAE0143 25-hydroxyvitamin D (D2+D3) - Total HAE0261 (serum EDTA plasma preserve the chemical integrity of a blood specimen from the moment it is collected until it is assayed. Do not use grossly hemolytic, icteric or grossly lipemic specimen from the moment it is collected sunlight. Avoid repeated freeze-thaw cycles. See: https://www.synnovis.co.uk/our-tests/25-oh-vitamin-d On request N/													
or plasma preserve the chemical integrity of a blood specimen from the moment it is collected until it is assayed. Do not use grossly hemolytic, icteric or grossly lipemic thaw cycles. 25-hydroxyvitamin D2 HAE0142 25-hydroxyvitamin D3 HAE0143 25-hydroxyvitamin D (D2+D3) - Total HAE0261 Plasma preserve the chemical integrity of a blood specimen from the moment it is collected sunlight. Avoid repeated freeze-until it is assayed. Do not use grossly thaw cycles. Post ACTH stim On request N/	17-OH-Progesterone	N/A	Blood	SST or	500uL	The usual precautions for venipuncture	2-8°C for 7 days	Werfen DS2	Females:	ng/mL	On request	N/A	
specimen from the moment it is collected until it is assayed. Do not use grossly thaw cycles. 25-hydroxyvitamin D2 HAE0142 25-hydroxyvitamin D3 HAE0143 25-hydroxyvitamin D (D2+D3) - Total HAE0261 specimen from the moment it is collected until it is assayed. Do not use grossly thaw cycles. hemolytic, icteric or grossly lipemic See: https://www.synnovis.co.uk/our-tests/25-oh-vitamin-d See: https://www.synnovis.co.uk/our-tests/25-oh-vitamin-d			(serum	EDTA		should be observed. It is important to	-20°C (Aliquots) for 3 months	(IBL kit)	FollicuLar phase -				
until it is assayed. Do not use grossly thaw cycles. 25-hydroxyvitamin D2 HAE0142 25-hydroxyvitamin D3 HAE0143 25-hydroxyvitamin D (D2+D3) - Total HAE0261 until it is assayed. Do not use grossly thaw cycles. Post ACTH stim Post ACTH stim On request N/			or	plasma		preserve the chemical integrity of a blood	Keep away from heat or direct		0.3-1.0				
hemolytic, icteric or grossly lipemic Post ACTH stim 25-hydroxyvitamin D2 HAE0142 25-hydroxyvitamin D3 HAE0143 25-hydroxyvitamin D (D2+D3) - Total HAE0261 hemolytic, icteric or grossly lipemic Post ACTH stim No request No Post ACTH stim No request No Post ACTH stim On request No Post ACTH stim No request N			plasma)			specimen from the moment it is collected	sunlight. Avoid repeated freeze-		Luteal phase -				
25-hydroxyvitamin D2 HAE0142 25-hydroxyvitamin D3 HAE0143 See: https://www.synnovis.co.uk/our-tests/25-oh-vitamin-d On request N/ 25-hydroxyvitamin D (D2+D3) - Total HAE0261						until it is assayed. Do not use grossly	thaw cycles.		0.2-2.9				
25-hydroxyvitamin D3 HAE0143 See: https://www.synnovis.co.uk/our-tests/25-oh-vitamin-d On request N/ 25-hydroxyvitamin D (D2+D3) - Total HAE0261						hemolytic, icteric or grossly lipemic			Post ACTH stim				
25-hydroxyvitamin D (D2+D3) - Total HAE0261	, ,												
						See: https://www.synnovis.co.	uk/our-tests/25-oh-vitamin-d				On request	N/A	
	, ,							,	,				
	a1-acid glycoprotein	12371008	Blood	•	500uL					ug/mL	On request	N/A	
55 (serum EDTA minutes at room temperature, centrifuge and store samples at ≤ -20 °C. (Biotechne Plasma: 322-1143 (serum/		55	(serum	EDTA			•	(Biotechne					
or plasma, for 15 minutes at 1000 x g. Avoid repeated freeze-thaw kit) Urine: 68-19100 plasma)			or	plasma,			Avoid repeated freeze-thaw	kit)	Urine: 68-19100	plasma)			
plasma) heparin Plasma - Centrifuge for 15 minutes cycles. ng/mL ng/mL			plasma)	heparin			cycles.			ng/mL			
urine plasma at 1000 x g within 30 minutes of collection. (urine)			urine	plasma						(urine)			
or urine Urine - Aseptically collect the first urine of													
	Activin A	12371008	Blood	SST or	300uL	·			Serum: 142-753	pg/mL	On request	N/A	
52 (serum EDTA minutes at room temperature before and store samples at ≤ -20 °C. (Biotechne Plasma: 115-665		52	(serum	EDTA		·	•	(Biotechne	Plasma: 115-665				
or plasma centrifugation for 15 minutes at 1000 x g. Avoid repeated freeze-thaw kit)			or	plasma		centrifugation for 15 minutes at 1000 x g.	Avoid repeated freeze-thaw	kit)					
plasma) Plasma - Centrifuge for 15 minutes at 1000 cycles.			plasma)			Plasma - Centrifuge for 15 minutes at 1000	cycles.						
x g within 30 minutes of collection.						x g within 30 minutes of collection.							
	Adiponectin	CRD0005	Blood	SST or	500uL				Serum:	pg/mL	On request	N/A	
(serum EDTA or minutes at room temperature before store samples at ≤ -20 °C. Avoid Simple Ella 5344-14,425			(serum	EDTA or			store samples at ≤ -20 °C. Avoid	Simple Ella	5344-14,425				
or heparin centrifugation for 15 minutes at 1000 x g. repeated freeze-thaw cycles. EDTA plasma: 3051-			or	heparin		centrifugation for 15 minutes at 1000 x g.	repeated freeze-thaw cycles.		EDTA plasma: 3051-				
plasma) Plasma Plasma - Centrifuge for 15 minutes at 1000 12,506			plasma)	Plasma		Plasma - Centrifuge for 15 minutes at 1000			12,506				
x g within 30 minutes of collection. Heparin plasma:						x g within 30 minutes of collection.			Heparin plasma:				
2373-15,202									2373-15.202				
	Adrenomedullin	12371008	Blood	SST or	500uL	Serum: Allow samples to clot for 2 hours at	, , , , , , , , , , , , , , , , , , , ,		-	pg/mL	On request	N/A	
53 (serum EDTA or room temperature or overnight at 4°C months). Avoid repeated freeze- (Novus kit)		53	(serum	EDTA or		room temperature or overnight at 4°C	months). Avoid repeated freeze	(Novus kit)					
or heparin before centrifugation for 15 min at thaw cycles. Hemolysed			or	heparin		before centrifugation for 15 min at	thaw cycles. Hemolysed						
plasma) Plasma 1000×g at 2~8°C. Blood collection tubes samples are not suitable			, , , , , , , , , , , , , , , , , , ,	DI.		4000 12**00C DL							

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Aflibercept	12371006	Blood	SST or	500uL	Serum: Allow samples to clot for 2 hours at	Storage: 2-8°C, Stability: 3d	Werfen DS2		ng/mL	On request	N/A
	59	(serum	EDTA or		room temperature or overnight at 4°C		(Eagle Bio kit)				
		or	heparin		before centrifugation for 15 min at						
		plasma)	plasma		1000×g at 2~8°C. Blood collection tubes						
					shouLd be disposable and be non						
					endotoxin.						
					Plasma: Collect plasma using EDTA or						
					heparin as an anticoaguLant. Centrifuge						
					samples for 15 min at 1000×g at 2~8°C						
					within 30 min of collection.						
					Do not use grossly hemolytic, icteric or						
					grossly lipemic specimens. Samples						
					appearing turbid should be						
					centrifuged before testing						
a-klotho	12371006	Blood	SST, EDTA	500uL	Test samples should be measured soon	Store frozen, avoid repeated	Werfen DS2	-	pg/mL	On request	N/A
	60	(serum	plasma or		after collection. Urine samples are less	freeze-thaw cycles.	(IBL kit)		' '	,	
		or	urine		stable than serum, therfore freeze urine	·					
		plasma)			samples rapidly after collection and avoid						
		or urine			refreezing.						
alpha 2-macroglobuLin	12371008		SST or	500uL	Serum - allow samples to clot for 30	-20°C or -80°C. Avoid repeated	Werfen DS2	-	pg/mL	On request	N/A
	50	(serum	EDTA		minutes at room temperature, centrifuge	freeze-thaw cycles.	(Biotechne				
		or	plasma		for 15 minutes at 1000 x g.		kit)				
		plasma)	·		Plasma - Centrifuge for 15 minutes						
					at 1000 x g within 30 minutes of collection.						
Amylin	12371008	Blood	SST or	500uL	Serum - allow samples to clot for 30	-20°C (≤1 month)	Werfen DS2	-	pg/mL	On request	N/A
	56	(serum	EDTA		minutes at room temperature, centrifuge	or -80°C (≤3 months)	(Novus kit)		1	,	
		or	plasma		for 15 minutes at 1000 x g.						
		plasma)			Plasma - Centrifuge for 15 minutes						
		' ' '			at 1000 x g within 30 minutes of collection.						
Amyloid b protein	12371006	CSF	Universal	500uL	Use local CSF collection protocol	Freeze sample at ≤ -70 °C.	Werfen DS2	ND-711	pg/mL	On request	N/A
, ,	61		container		· ·	within one hour of collection	(R&D Systems		' ' '	·	,
							kit)				
Angiopoietin-2	CRD0139	Blood	SST,	500uL	Serum - allow samples to clot for 30	-20°C (≤1 month)	Protein		pg/mL	On request	N/A
Angiopoletiii-2	CND0133	(serum	EDTA	JOUL	minutes at room temperature, centrifuge	or -80°C (≤3 months)	Simple Ella		P6/IIIL	- on request	14/ /
		`	plasma or		for 15 minutes at 1000 x g.	01 -80 C (23 HIOHITIS)	Simple Lila				
		or	•		· ·						
		plasma)	heparin		Plasma - Centrifuge for 15 minutes				T		
			plasma		at 1000 x g within 30 minutes of collection.						

Test Description	Epic test		Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TA
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Angiotensin 1	12371006 62	Serum	SST	1000uL	Allow samples to clot for 2 hours at room temperature or overnight at 4°C. Centrifugation for 15 min at 1000×g at 2-8°C. Collect the supernatant to carry out the assay. Use nonendotoxin blood	Frozen (-80°C). Avoid repeated freeze-thaw cycles.	Sandwich ELISA		pg/mL	On request	N/A
Angiotensin 1-7	12371008 57	Blood (serum or plasma)	SST or EDTA plasma	500uL	Serum - allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	-20°C (stability not yet evaluated). Avoid repeated freeze-thaw cycles.	Werfen DS2 (Biotechne kit)	-	pg/mL	On request	N/A
Angiotensin 1-7 (AG17)	?	Serum	SST	300uL	Allow samples to clot for 2 hours at room temperature or overnight at 4°C. Centrifugation for 15 min at 1000×g at 2-8°C. Collect the supernatant to carry out the assay. Use nonendotoxin blood	4°C - stable for 7 days. Frozen (- 20°C) - stable for ≤1 month. Frozen (-80°C) - stable for ≤3 months. Avoid repeated freeze- thaw cycles.	Competitive ELISA	-	pg/mL	On request	N/A
Angiotensin 1-9	12371008 58	Blood (serum or plasma)	SST EDTA plasma	500uL	Serum - allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	-20°C (stability not yet evaluated). Avoid repeated freeze-thaw cycles.	Werfen DS2 (Biotechne kit)		pg/mL	On request	N/A
Angiotensin 1-9 (AG19)	?	Blood (serum)	SST	1000uL	Allow samples to clot for 2 hours at room temperature or overnight at 4°C. Centrifugation for 15 min at 1000×g at 2-8°C. Collect the supernatant to carry out the assay. Use nonendotoxin blood collection tubes.	Frozen (-80°C). Avoid repeated freeze-thaw cycles.	Competitive ELISA	·	pg/mL	On request	N/A
Angiotensin 2 (ANG2)	12371006 63	Blood (serum)	SST	1000uL		Frozen (-80°C). Avoid repeated freeze-thaw cycles.	Competitive ELISA	-	pg/mL	On request	N/A
Angiotensin converting enzyme 2	12371008 51	Blood (serum or plasma)	SST EDTA plasma	500uL	Allow samples to clot for 2 hours at room temperature or overnight at 4°C. Centrifugation for 15 min at 1000×g at 2- 8°C. Collect the supernatant to carry out	Frozen (-80°C). Avoid repeated freeze-thaw cycles.	Werfen DS2 (Biotechne kit)		pg/mL	On request	N/A
Angiotensin I Converting Enzyme (ACE)	?	Blood (serum)	SST	300uL	Allow samples to clot for 2 hours at room temperature or overnight at 4°C. Centrifugation for 15 min at 1000×g at 2-8°C. Collect the supernatant to carry out the assay. Use nonendotoxin blood	4°C - stable for 4 weeks. Frozen (-80°C) - stable for ≤3 months. Avoid repeated freeze-thaw cycles.	Immunoassay	-	pg/mL	On request	N/A

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Angiotensin I Converting Enzyme 2 (ACE2)	?	Blood	SST	300uL	Allow samples to clot for 2 hours at room	4°C - stable for 7 days. Frozen (-	Sandwich	-	pg/mL	On request	N/A
		(serum)			temperature or overnight at 4°C.	20°C) - stable for ≤1 month.	ELISA				
					Centrifugation for 15 min at 1000×g at 2-	Frozen (-80°C) - stable for ≤3					
					8°C.	months.					
Anti Mullerian hormone	12371009	Blood	SST or	500uL	Serum - allow samples to clot for 1 hour or	4°C - stable for 7 days. Frozen (-	Werfen DS2	-	ng/mL	On request	N/A
	46	(serum	EDTA		overnight at 2-8°C, centrifuge for 20	20°C) - stable for ≤1 month.	(Biotechne				
		or	plasma		minutes at 1000 x g. Plasma - Centrifuge for	Frozen (-80°C) - stable for ≤3	kit)				
		plasma)			15 minutes at 1000 x g within 30 minutes of	months.					
					collection. Use nonendotoxin blood						
					collection tubes, haemolysed/lipaemic						
					samples not suitable.						
Apelin Total	12371008	Blood	SST or	500uL	Serum: Allow samples to clot for 2 hours at	4°C - stable for 7 days. F <u>rozen</u> (-	Werfen DS2	-	pg/mL	On request	N/A
	63	(serum	EDTA		room temperature or overnight at 2-8°C.	20°C) - stable for ≤1 month.	(Biotechne		'		
		or	plasma		Centrifugation for 15 min at 1000×g at 2-	Frozen (-80°C) - stable for ≤3	kit)				
		plasma)			8°C.	months.					
					Plasma - Centrifuge for 15 minutes						
					at 1000 x g within 30 minutes of collection.						
Apelin-13	12371008	Blood	SST or	500uL	Serum: Allow samples to clot for 2 hours at	4°C - stable for 7 days. Frozen (-	Werfen DS2	-	pg/mL	On request	N/A
	60	(serum	EDTA		room temperature or overnight at 2-8°C.	20°C) - stable for ≤1 month.	(Biotechne				
		or	plasma		Centrifugation for 15 min at 1000×g at 2-	Frozen (-80°C) - stable for ≤3	kit)				
		plasma)			8°C.	months.					
Apelin-17	12371008	Blood	SST or	500uL	Serum: Allow samples to clot for 2 hours at	4°C - stable for 7 days. Frozen (-	Werfen DS2	-	nmol/L	On request	N/A
	59	(serum	EDTA		room temperature or overnight at 2-8°C.	20°C) - stable for ≤1 month.	(Biotechne				
		or	plasma		Centrifugation for 15 min at 1000×g at 2-	Frozen (-80°C) - stable for ≤3	kit)				
		plasma)			8°C.	months.					
					Plasma - Centrifuge for 15 minutes						
					at 1000 x g within 30 minutes of collection.						
Apelin-36	12371008	Blood	SST or	500uL	Serum: Allow samples to clot for 2 hours at	4°C - stable for 7 days. Frozen (-	Werfen DS2	-	U/ml	On request	N/A
	61	(serum	EDTA		room temperature or overnight at 2-8°C.	20°C) - stable for ≤1 month.	(Biotechne				
		or	plasma		Centrifugation for 15 min at 1000×g at 2-	Frozen (-80°C) - stable for ≤3	kit)				
		plasma)			8°C.	months.					
					Plasma - Centrifuge for 15 minutes						
Apolipoprotein A1	12371008	Blood	SST, EDTA	500uL	Serum - allow samples to clot for 30	Store samples at ≤ -20 °C. Avoid	Werfen DS2	Serum: 1.48-3.20	mg/mL	On request	N/A
	44	(serum	plasma,		minutes at room temperature before	repeated freeze-thaw cycles.	(Biotechne	EDTA plasma:			
		or	heparin		centrifugation for 15 minutes at 1000 x g.		kit)	1.40-2.87			
		plasma)	plasma or		Plasma - Centrifuge for 15 minutes			Heparin plasma:			
		or urine	urine		at 1000 x g within 30 minutes of collection.			1.19-2.97			

Apolipoprotein B	12371008	Blood	SST, EDTA	500uL	Serum - allow samples to clot for 30	Store samples at ≤ -20 °C. Avoid	Werfen DS2	Serum: 189-991	ug/mL	On request	N/A
	62	(serum	plasma or		minutes at room temperature before	repeated freeze-thaw cycles.	(Biotechne	EDTA plasma:			
		or	Heparin		centrifugation for 15 minutes at 1000 x g.		kit)	189-985			
		plasma)	Plasma		Plasma - Centrifuge for 15 minutes			Heparin plasma:			
					at 1000 x g within 30 minutes of collection.			195-1033			

Test Description	Epic test code	Sample type	Sample tube	Minimum volume	Processing requirements (pre-analysis)	Storage requirements (pre-analysis)	Method	Reference ranges	Units	Frequency	Guide TAT
Apolipoprotein E	12371006 65		SST, EDTA plasma, heparin plasma or CSF	500uL	Serum - allow samples to clot for 30 minutes at room temperature before centrifugation for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. CSF: Centrifuge samples at 3000 x g for 10	Serum/plasma: store at -20°C or below for up to 3 months. CSF: store at -80°C for up to 3 months. Avoid repeated freeze-thaw	Werfen DS2 (Novus kit)	ž	pg/mL	On request	N/A
Beta Endorphin	12371006 68	(serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum: Allow samples to clot for 2 hours at room temperature or overnight at 4°C before centrifugation for 15 min at 1000×g at 2~8°C. Blood collection tubes should be non-endotoxin.	Analyse within 7 days when stored at 4°C, or aliquotte and store at -20°C (≤1 month) or -80°C (≤3 months). Avoid repeated freeze-thaw cycles	Werfen DS2 (Novus kit)		pg/mL	On request	N/A
Beta-Defensin 4	12371008 66	Blood (serum or plasma)	SST or EDTA plasma	500uL	Serum: Allow samples to clot for 30 minutes. Centrifuge at 1000 x g for 15 minutes. Plasma: Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	24 hours at 4°C For a longer periods store at - 20°C to -80°C.	Werfen DS2 (Biotechne kit)	-	pg/mL	On request	N/A
Beta-nerve growth factor	CRD0142	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum: Allow samples to clot for 30 minutes at room temperature before centrifugation for 15 minutes at 1000 x g. Plasma: Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: ND-4.08 EDTA plasma: ND-3.74 Heparin plasma: ND-3.94	pg/mL	On request	N/A
Bone-specific alkaline phosphatase	12371006 70	Blood (serum)	SST	500uL	Allow the blood to clot and separate the serum by centrifugation. Haemolysed samples unsuitable.	5 days at 2°C to 8°C 12 months at ≤ −40°C 36 months ≤ −80°C Do not subject samples to more than 3 freeze/thaw cycles.	Werfen DS2 (QUIDEL kit)	Female 25-44 yrs (premenopausal) 11.6 - 29.6 Females ≥45 yrs (postmenopausal) 14.2-42.7 Males ≥25 yrs 15.0-41.3	U/L	On request	N/A
Brain-derived neurotrophic factor	CRD0018	Blood (serum or plasma)	SST, platelet poor EDTA plasma or platelet	500uL	Serum: Allow samples to clot for 30 minutes at room temperature before centrifugation for 15 minutes at 1000 x g. Plasma: Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Assay immediately or aliquot and store at ≤ -20 °C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 21,105-55,408 PP EDTA plasma: 44.3-4516 PP Heparin plasma: 352-3455	pg/mL	On request	N/A
Calcitonin gene related peptide	12371008 72	Blood (serum or plasma)	SST or EDTA plasma	500uL	Serum: Allow samples to clot for 30 minutes at room temperature before centrifugation for 15 minutes at 1000 x g. Plasma: Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤ -20 °C. Avoid repeated freeze-thaw cycles.	Werfen DS2 (Biotechne kit)	-	ng/mL	On request	N/A
Carbonic anhydrase II	12371008 68	Blood (serum or plasma)	SST or EDTA plasma	500uL	Serum: Allow samples to clot for 30 minutes at room temperature before centrifugation for 15 minutes at 1000 x g. Plasma: Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	<-20 °C for up to three months. Avoid repeated freeze-thaw cycles.	Werfen DS2 (Novus kit)	-	pg/mL	On request	N/A

Carbonic anhydrase III 1	12371008	Blood	SST or	500uL	Serum: Allow samples to clot for 30	≤-20 °C for up to three months.	Werfen DS2	-	U/L	On request	N/A
	69	(serum	EDTA		minutes at room temperature before	Avoid repeated freeze-thaw	(Novus kit)				
		or	plasma		centrifugation for 15 minutes at 1000 x g.	cycles.					
		plasma)			Plasma: Centrifuge for 15 minutes at 1000 x						
					g within 30 minutes of collection.						

Test Description	Epic test	Sample type	Sample tube	Minimum volume	Processing requirements (pre-analysis)	Storage requirements (pre-analysis)	Method	Reference ranges	Units	Frequency	Guide TAT
Carbonic anhydrase IX	12371008 70		SST, EDTA plasma, heparin plasma, citrate plasma or	500uL	Serum: Allow samples to clot for 30 minutes at room temperature before centrifugation for 15 minutes at 1000 x g. Plasma: Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	≤-20 °C for up to three months. Avoid repeated freeze-thaw cycles.	Werfen DS2 (Novus kit)	-	pg/mL	On request	N/A
Cardiotrophin 1	12371009 59	Blood (serum or plasma)	urine SST or EDTA plasma	500uL	Plasma: Centrifuge samples at 3000 x g for 10 minutes. Serum: After clot formation, centrifuge samples at 3000 x g for 10 minutes.	≤-20 °C for up to three months. Avoid repeated freeze-thaw cycles.	Werfen DS2 (Novus kit)		nmol/L	On request	N/A
Cartilage Oligomeric Matrix Protein	CRD0020	Blood (serum or plasma)	SST serum, EDTA plasma or heparin plasma	500uL	Serum: Allow samples to clot for 30 minutes at room temperature before centrifugation for 15 minutes at 1000 x g. Plasma: Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Assay immediately or aliquot and store at ≤ -20 °C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 72,611-328,847 EDTA plasma: 108,529-331,703 Heparin plasma:	pg/mL	On request	N/A
Chemokine Ligand 17 (CCL17-TARC)	CRD0299	Blood (serum or plasma)	SST or EDTA plasma	500uL	Primary sample collection tube should be centrifuged within 1 hour from venepuncture. Serum/plasma should be aliquoted into a minimum of 2 cryovials.	Store frozen at -80C. Transport should be on dry ice to avoid specimen thaw.	Protein Simple Ella		pg/mL	On request	N/A
Cholecystokinin	12371006 74	Blood (serum or plasma)	Plain serum (no additive) SST or EDTA	500uL	Serum: Allow samples to clot for 2 hours at room temperature or overnight at 4°C before centrifugation for 15 min at 1000×g at 2~8°C. Blood collection tubes should be non-endotoxin.	Assay immediately or aliquot and store at ≤ -20 °C. Avoid repeated freeze-thaw cycles.	Werfen DS2 (Novus kit)	-	ng/mL	On request	N/A
Circulating immune complex	12371008 73	Blood (serum or plasma)	SST or EDTA plasma	500uL	All specimens should be collected aseptically and prepared using standard techniques for clinical laboratory testing. Do not heat-inactivate the specimens.	2°-8°C for up to 7 days –20°C or below for longer periods	Werfen DS2 (Novus kit)	<4.0	ug Eq/mL	On request	N/A
Clusterin	CRD0149		SST serum, EDTA plasma, heparin plasma or	500uL	Serum: Allow to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma: Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store serum/plasma samples at ≤-20°C. Avoid repeated freeze- thaw cycles. Urine: store at ≤-80°C	Protein Simple Ella	Serum: 178-235 EDTA: 187-272 Heparin: 147-238 Urine: 126-552	ug/mL	On request	N/A
Colony stimulating factor 2 GMCSF	CRD0188	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Normally undetectable.	ng/mL	On request	N/A
Complement factor 3a-desArg	12371006 75	Blood (serum or plasma)	SST or EDTA plasma	500uL		-	Werfen DS2 (Quidell kit)	-	ng/mL	On request	N/A

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Complement factor B b	12371006 76	Blood (serum or plasma)	SST, EDTA plasma or urine	500uL	-	•	Werfen DS2 (Quidell kit)	-	ng/mL	On request	N/A
		or urine									
Complement Factor D/Adipsin	12371008		SST serum.	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum: 1729-3238	ng/mL	On request	N/A
complement ractor by raipsin	54	(serum	EDTA	30002	minutes at room temperature centrifuge	repeated freeze-thaw cycles.	(Biotechne	EDTA: 1468-3657		Onrequest	,,,
		or	plasma,		for 15 minutes at 1000 x g. store samples at		kit)	Heparin: 906-2545			
		plasma)	heparin		≤ -20 °C.			Urine: ND-7.32			
Corin	12371008	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum: 578-3138	pg/mL	On request	N/A
	75	(serum	plasma or		minutes at room temperature centrifuge	repeated freeze-thaw cycles.	(Biotechne	EDTA: 489-3032			
		or	heparin		for 15 minutes at 1000 x g.		kit)	Heparin: 568-3058			
		plasma)	Plasma		Plasma - Centrifuge for 15 minutes at 1000						
Corticotropin releasing factor	12371009		SST or	500uL	Serum - Allow samples to clot for 2 hours at	•	Werfen DS2	-	pg/mL	On request	N/A
	62	(serum	EDTA		room temperature centrifuge for 15	≤1 month -20°C ≤3 months -80°C	(Novus kit)				
		or plasma)	plasma		minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000	Avoid repeated freeze-thaw					
		piasilia)			x g within 30 minutes of collection.	cycles					
Cotinine	12371006	Blood	SST, urine	500uL		-	Werfen DS2	-	ng/mL	On request	N/A
	79	(serum),	or				(Novus kit)				,
		urine or	saliva								
		saliva									
C-Peptide - Clinical Trials	12371010	Blood	SST or	500uL	Serum - Allow samples to clot for 2 hours at	30 days at -80°C. Avoid multiple	Siemens	0.9-7.1	ng/mL	On request	N/A
	88	(serum	heparin		room temperature centrifuge for 15	freeze thaw cycles.	ImmuLite				
		or	plasma		minutes at 1000 x g.						
		plasma)			Plasma - Centrifuge for 15 minutes at 1000						
Constituted Chalanantida of the control and	12271000	Disasi	CCT EDTA	F00I	x g within 30 minutes of collection.	7 4-11 2 000	Werfen DS2		/1	0:- :	N1/A
Cross-linked C-telopeptide of type I collagen	12371006 82	Blood (serum	SST, EDTA plasma or	500uL	Serum: Allow samples to clot for 2 hours at room temperature or overnight at 4°C	7 days at 2-8°C ≤1 month -20°C	(Novus kit)	-	ng/mL	On request	N/A
	02	or	heparin		before centrifugation for 15 min at	≤3 months -80°C	(NOVUS KIL)				
		plasma)	plasma		1000×g at 2~8°C. Blood collection tubes	Avoid repeated freeze-thaw					
Cytokeratin-18	12371008	 	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: ND-2049	pg/mL	On request	N/A
	77	(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: ND-2159			
		or	heparin		for 15 minutes at 1000 x g.			Heparin: ND-2810			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
Dehydroepiandrosterone	12371006		SST	500uL	Allow samples to clot for 30 minutes at	Stable for 4 days at 2-8°C and 3	Werfen DS2	Males: 0.52 – 5.18	ng/mL	On request	N/A
	83	(serum)			room temperature, centrifuge for 15	months at ≤-20°C. Do not use	(IBL	Females:			
					minutes at 1000 x g.	grossly hemolytic, icteric or	International	0.36 – 7.82			
						lipemic specimens. Samples	kit)				
						appearing turbid should be					
						centrifuged. Avoid repeated freeze-thaw cycles.					
						rreeze-thaw cycles.					

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Dehydroepiandrosterone Sulphate (DHEAS)	?	Blood	SST or EDTA	500uL	Allow samples to clot for 30 minutes at	Stable for 7 days at 2-8°C and 6	Werfen DS2	Women: 0.37 –	ug/mL	On request	N/A
		(serum	plasma		room temperature, centrifuge for 15	months at ≤-20°C. Do not use	(IBL	2.71			
		or			minutes at 1000 x g.	grossly hemolytic, icteric or	International	Men: 0.73 – 3.81			
Dickkopf related protein 1	CRD0153	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 2343-4999	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 327-1015			
		or	heparin		for 15 minutes at 1000 x g.			Heparin: 306-1035			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						
Endoglin/CD105	CRD0154		SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 4030-6207	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 3786-6004			
		or	heparin		for 15 minutes at 1000 x g.			Heparin:			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			3601-5308			
Endothelin-1	CRD0157		SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 0.92-1.58	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 0.9-1.4			
		or	heparin		for 15 minutes at 1000 x g. store samples at			Heparin: 0.78-1.48			
		plasma)	plasma		≤ -20 °C. Avoid repeated freeze-thaw						
					cycles.						
Eotaxin/CCL11	12371008		SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid		Serum: 50-642	pg/mL	On request	N/A
	83	(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(Biotechne	EDTA: 32-272			
		or	citrate		for 15 minutes at 1000 x g.		kit)	Citrate: 47-399			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						
Eotaxin-3/CCL26	12371008	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 4.75-61.6	pg/mL	On request	N/A
	83	(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 3.7548.5			
		or	heparin		for 15 minutes at 1000 x g.			Heparin: 38.9-222			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						
Epidermal growth factor	?	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid		-	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Investigtor				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						
Epithelial neutrophil activating peptide 78	CRD0156		SST,	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 469-4713	pg/mL	On request	N/A
(CXCL5/ENA-78)		(serum	platelet		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 13.8-97.8			
		or	poor EDTA		for 15 minutes at 1000 x g.			Heparin: 35.8-439			
		plasma)	plasma or		Plasma - Centrifuge for 15 minutes at 1000						
			platelet		x g within 30 minutes of collection.						
E-Selectin/CD62E	CRD0214		SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum:	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	6051-77637			
		or	heparin		for 15 minutes at 1000 x g.			EDTA:			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			11298-49085			
					x g within 30 minutes of collection.			Heparin:			
								9787-48946			

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Estrone	12371008		SST	300uL	Collect 4–5 mL of blood into an	Room temperature: <3 days	Werfen DS2	Female	pg/mL	On request	N/A
	85	(serum)			appropriately labelled tube and allow it to	2-8°C <u><</u> 7 days	(IBL kit)	Premenopausal:			
					clot. Centrifuge and carefully remove the	-20°C <u><</u> 1 month		27.1 - 230.6			
					serum layer.			Premenopausal:			
								1 – 10 days:			
								18.9-148.5			
								11 – 20 days:			
Fatty acid binding protein 2	CRD0161	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid		Serum: 509-1585	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 471-1638			
		or	heparin		for 15 minutes at 1000 x g.			Heparin: 479-1648			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						
Fetuin A	12371006		SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid		Serum: 303-671	ng/mL	On request	N/A
	86	(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(R&D Systems	EDTA plasma:			
		or	heparin		for 15 minutes at 1000 x g.		kit)	274-631			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			Heparin plasma:			
					x g within 30 minutes of collection.			285-617			
Faecal Lactoferrin	CRD0181	Stool	Stool	0.5g		Store samples at ≤-20°C. Avoid	BioVendor	-	-	On request	N/A
			universal			repeated freeze-thaw cycles.					
Fibroblast growth factor 19	CRD0034	Blood	SST	500μL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 40.8-227	pg/mL	On request	N/A
Thorostast growth factor 15	CINDOOS	(serum	EDTA	σοσμε	minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA Plasma:	P6/	On request	1.77.
		or	plasma		for 15 minutes at 1000 x g.	repeated needs than eyeles.	Simple End	65.8-423			
		plasma)	Heparin		Plasma - Centrifuge for 15 minutes at 1000			Heparin Plasma:			
Fibroblast growth factor 21	CRD0035	·	SST	500µl	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum: ND-914	pg/mL	On request	N/A
	3.1.2.000	(serum	EDTA	300µ.	minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(R&D Systems	EDTA plasma:	P6/	oequest	,,, .
		or	plasma		for 15 minutes at 1000 x g.		kit)	ND-1155			
		plasma)	Heparin		Plasma - Centrifuge for 15 minutes at 1000		"""	Heparin plasma: ND-			
		piasilia,	plasma		x g within 30 minutes of collection.			1012			
Fibroblast growth factor 23	CRD0036	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 48-131	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 70.6-210			
		or	heparin		for 15 minutes at 1000 x g.			Heparin: 72.4-183			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Fibronectin	12371006	Blood	Blood: SST,	500µl	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum: 0.083-0.539	ng/mL	On request	N/A
	90	(serum	EDTA		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(R&D Systems	EDTA: 0.116-0.601			
		or	plasma,		for 15 minutes at 1000 x g.		kit)	Heparin:			
		plasma)	citrated		Plasma - Centrifuge for 15 minutes at 1000			0.048-0.527			
		or	plasma or		x g within 30 minutes of collection.			Citrate:			
Follistatin-related gene protein	12371006	Blood	Blood: SST,	500μL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum: 3142-8554	pg/mL	On request	N/A
	91	(serum	EDTA		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(R&D Systems	EDTA plasma: 3329-			
		or	plasma		for 15 minutes at 1000 x g.		kit)	8808			
		plasma)	Urine:		Plasma - Centrifuge for 15 minutes at 1000			Heparin plasma:			
		Urine	sterile		x g within 30 minutes of collection.			3214-8953			
Galectin-3	CRD0039	Blood	SST, EDTA	500μL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 3078-	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	12,465			
		or	heparin		for 15 minutes at 1000 x g.			EDTA Plasma: 3185-			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			8201			
					x g within 30 minutes of collection.			Heparin plasma:			
Gastric Inhibitory Polypeptide (GIP)	12371006	Blood	SST, EDTA	500μL	Serum: Allow samples to clot for 2 hours at	2°-8°C for up to 7 days	Werfen DS2	-	pg/mL	On request	N/A
	93	(serum	plasma or		room temperature or overnight at 4°C	–20°C or below for longer	(Novus kit)				
		or	heparin		before centrifugation for 15 min at	periods					
		plasma)	plasma		1000×g at 2~8°C. Blood collection tubes						
					should be non-endotoxin.						
Pro-gastrin releasing peptide	CRD0041	Blood	SST, EDTA	500μL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 17.9-41.0	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA Plasma:			
		or	heparin		for 15 minutes at 1000 x g.			16.2-40.2			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			Heparin plasma:			
					x g within 30 minutes of collection.			16.3-40.2			
Gastrin releasing peptide	CRD0041	Blood	SST, EDTA	500μL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	-	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						
Ghrelin	CRD0042	Blood	SST, EDTA	500μL	no more than 10 IU heparin per mL of	-	Werfen DS2	-	pg/mL	On request	N/A
		(serum	plasma or		blood		(Novus kit)				
		or	heparin								
		plasma)	plasma								
Ghrelin (acylated)	12371006		EDTA	500μL	Serum: Allow samples to clot for 2 hours at	2°-8°C for up to 7 days	Werfen DS2	-	pg/mL	On request	N/A
	96	(plasma)	plasma or		room temperature or overnight at 4°C	–20°C or below for longer	(IBL				
			heparin		before centrifugation for 15 min at	periods	International				
			plasma		1000×g at 2~8°C. Blood collection tubes		kit)				
					should be non-endotoxin.		6				
Glucagon	12371008		SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum: ND-224	pg/mL	On request	N/A
	45	(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(Biotechne	EDTA: ND-226			
		or	heparin		for 15 minutes at 1000 x g.		kit)	Heparin: ND-221			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						

Glucagon-like peptide-1 (GLP-1)	12371006	Blood	EDTA	500μL	Results may vary widely in samples from	Plasma samples should be	Werfen DS2	-	pmol/L	On request	N/A
	98	(plasma)	plasma or		fasting/non-fasting/glucose induced	stored at 2-8°C if tested within	(IBL				
			heparin		donors. Samples should not be taken from	3 hours of collection. For long	International				
			plasma		donors taking biotin, e.g. dietary	term storage store at	kit)				
					supplements at least 48 hours prior to	-70°C. Aliquot samples before					
					specimen collection. BD™ P700 Blood	freezing if necessary.					
					Collection and Preservation System must						
					be used for sample collection.						

Test Description	Epic test	Sample type	Sample tube	Minimum volume	Processing requirements (pre-analysis)	Storage requirements (pre-analysis)	Method	Reference ranges	Units	Frequency	Guide TAT
Glycerol	CRD0236		SST or	Volunie	(pre-anarysis)	(pre-anarysis)		ranges	umol/L	On request	N/A
divider of	CND0230	(serum	EDTA			-			uiiioi/ L	OffTequest	13/7
		or	plasma								
		_	piasilia								
Classical and Coppe	42274000	plasma)	CCT	500 1	S	7 1 12 000)		, , ,		21/2
Glycogen phosphorylase BB/GPBB	12371008		SST or	500uL	Serum - Allow samples to clot for 2 hours at	·	Werfen DS2	-	pg/mL	On request	N/A
	91	(serum	citrate		room temperature, centrifuge for 15	≤1 month -20°C	(Novus kit)				
		or	plasma		minutes at 1000 x g.	≤3 months -80°C					
		plasma)			Plasma - Centrifuge for 15 minutes at 1000						
Glycolytic pyruvate kinase isoenzyme type M2 dimer	?	Faeces	Sterile	Walnut	x g within 30 minutes of collection.	cycles	Werfen DS2		U/mL	On request	N/A
	f	raeces		sized	· ·	-		_	U/IIIL	On request	N/A
(M2PK)			universal				(kit)				
			stool	formed							
Construction and the first	CDDOACA	DI. I	universal	stool	5 411 20	51 1 2005 1 11	D 1.1	. ND 400		0 .	21/2
Granulocyte colony stimulating factor	CRD0164		SST, EDTA	100uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: ND-4.98	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: ND-4.60			
		or	heparin		for 15 minutes at 1000 x g.			Heparin: ND-1.90			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						
Growth differentiation factor 15	CRD0165	Blood	SST, EDTA	100uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 295-854	pg/mL	On request	N/A
		(serum	plasma,		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 310-906			
		or	heparin		for 15 minutes at 1000 x g. store samples at			Heparin: 345-1024			
		plasma)	plasma or		≤ -20 °C.						
		or urine	urine		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						
Growth-regulated alpha protein (CXCL1/GRO alpha)	12371008	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	24 hours at 4°C	Werfen DS2	-	μg	On request	N/A
	92	(serum	plasma,		minutes at room temperature, centrifuge	-20°C to -80°C for longer	(Novus kit)		Eq/mL		
		or	heparin		for 15 minutes at 1000 x g.	periods					
		plasma)	plasma or		Plasma - Centrifuge for 15 minutes at 1000						
			citrate		x g within 30 minutes of collection.						
Heart muscle creatine kinase MB (CK-MB) (mass)		Blood	SST or	500uL	Allow samples to clot for 30 - 60 minutes at	· · · · · · · · · · · · · · · · · · ·	ImmuLite	Males:	ng/mL	On request	2 weeks
		(serum	heparinised		room temperature or up to 8 hours at 4°C.	20 °C.	2000	<6.74 ng/ml			
		or	plasma		Centrifugation for 15 min at 1000×g.			Females:			
		plasma)			Aliquot and store at -20°C.			<4.02 ng/ml			
Daman suite	12271000	Disast	CCT	F00I	Carrier Allana annulas da elab (20°C - - - - -	Wf DS3		/	0	N1/0
Hemopexin	12371008		SST,	500uL	Serum - Allow samples to clot for 30	-20°C or below for up to 3	Werfen DS2	-	pg/mL	On request	N/A
	94	(serum	citrate		minutes at room temperature, centrifuge	months. Avoid repeated freeze-	(Novus kit)		(serum		
		or	plasma or		for 15 minutes at 1000 x g.	thaw cycles			&		
		plasma)	urine		Plasma - Centrifuge for 15 minutes at 1000				plasma)		
Honotopito growth factor (UCE)	CDD01C0	Blood	CCT	500uL	x g within 30 minutes of collection.	-20°C or below for up to 3	Drotein	Serum: 944-1668	ng/mL	On rosuset	N/A
Hepatocyte growth factor (HGF)	CRD0168		SST, EDTA	500uL	Serum - Allow samples to clot for 30	'	Protein		pg/mL	On request	N/A
		(serum			minutes at room temperature, centrifuge	months. Avoid repeated freeze-	Simple Ella	EDTA: 481-1004			
		or	plasma or		for 15 minutes at 1000 x g.	thaw cycles		Heparin: 377-885			
		plasma)	heparin		Plasma - Centrifuge for 15 minutes at 1000						
			plasma		x g within 30 minutes of collection						

Test Description	Epic test	Sample type	Sample tube	Minimum volume	Processing requirements (pre-analysis)	Storage requirements (pre-analysis)	Method	Reference ranges	Units	Frequency	Guide TAT
Hepcidin-25	CRD0048	Blood (serum	SST, EDTA plasma or	500μL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge	-20°C or below for up to 3 months. Avoid repeated freeze-	Protein Simple Ella	Serum: 1554-34,763	pg/mL	On request	N/A
		or plasma)	heparin plasma		for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	thaw cycles		EDTA Plasma: 1775- 44,577 Heparin Plasma: 1391-31,968			
High molecular weight adiponectin	CRD0049	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500μL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	-20°C or below for up to 3 months. Avoid repeated freeze- thaw cycles	Protein Simple Ella	-	pg/mL	On request	N/A
iC3b fragment of C3 protein (C3B)	CRD0300	Blood (serum or plasma)	SST or EDTA plasma	500μL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	-20°C or below for up to 3 months. Avoid repeated freeze- thaw cycles	Protein Simple Ella	-	pg/mL	On request	N/A
Insulin - clinical trials	12371010 87	Blood (serum or plasma)	SST or heparin plasma	300uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store at -80°C. Avoid repeated freeze-thaw cycles	Siemens ImmuLite	4.4 – 26.0	uIU/mL	On request	N/A
Insulin-like growth factor binding protein 1 (IGFBP-1)	CRD0114	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	-20°C or below. Avoid repeated freeze-thaw cycles	Protein Simple Ella	Serum: 1153-33875 EDTA: 971-36429 Heparin: 943-31133	pg/mL	On request	N/A
IntercelluLar Adhesion MolecuLe 1	CRD0113	Blood (serum or plasma) or CSF	SST, EDTA plasma, heparin plasma or universal container	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Serum/plasma: -20°C or below. Avoid repeated freeze-thaw cycles Cerebrospinal Fluid: Freeze sample within one hour of collection to avoid aggregation. Store samples at ≤ -70°C.	Protein Simple Ella	Serum: 169962-538956 EDTA: 160056-473867 Heparin: 186416-368415 CSF: 2382-9921	pg/mL	On request	N/A
Interferon-alpha	CRD0055	(serum or plasma)	SST, EDTA plasma or heparin plasma	500μL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	-20°C or below. Avoid repeated freeze-thaw cycles	Protein Simple Ella	Serum: ND-4.68 EDTA Plasma: ND- 5.54 Heparin Plasma: ND- 6.04	pg/mL	On request	N/A
Interferon-beta	CRD0056	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500μL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	-20°C or below. Avoid repeated freeze-thaw cycles	Protein Simple Ella		pg/mL	On request	N/A

Interferon-gamma		Blood	EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	423.52 - 1843.81	pg/mL	On request	N/A
		(plasma),	plasma,		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		CSF,	universal		for 15 minutes at 1000 x g.						
		occuLar	container,		Plasma - Centrifuge for 15 minutes at 1000						
		fluid or	svringe or		x g within 30 minutes of collection						
Interferon inducible protein– 10	CRD0054	Blood	SST, EDTA	500μL	Serum - Allow samples to clot for 30	-20°C or below. Avoid repeated	Protein	-	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	freeze-thaw cycles	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Interleukin 1 alpha	12371007	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	ND	pg/mL	On request	N/A
	10	(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						

Test Description	Epic test code	Sample type	Sample tube	Minimum volume	Processing requirements (pre-analysis)	Storage requirements (pre-analysis)	Method	Reference ranges	Units	Frequency	Guide TAT
Interleukin 1 beta	?	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	0.00 - 0.66	pg/mL	On request	N/A
Interleukin 1 beta H.Sens.	12371008 41	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	-	pg/mL	On request	N/A
Interleukin 1 receptor antagonist	CRD0058	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 225-682 EDTA: 138-348 Heparin: 137-682	pg/mL	On request	N/A
IL-1 receptor 4 ST2	CRD0051	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	-	pg/mL	On request	N/A
IL-2 Receptor a (sIL-2Ra)	CRD0052	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	424.00-1,844.00	pg/mL	On request	N/A
Interleukin 10	CRD0059	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	0.96 - 3.20	pg/mL	On request	N/A
Interleukin 11	CRD0172	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: ND-362 EDTA: ND-329 Heparin: ND-324	pg/mL	On request	N/A
Interleukin 12	CRD0115	(serum or plasma)	SST or EDTA plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: ND-1.96 EDTA: 1.28-1.76	pg/mL	On request	N/A
interleukin 12 P40	CRD0179	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella		pg/mL	On request	N/A

Interleukin 12 P70	12371007	Blood	SST or EDTA	500μL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: ND-1.96	pg/mL	On request	N/A
	13	(serum	plasma		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 1.28-1.76			
		or			for 15 minutes at 1000 x g.						
		plasma)			Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Interleukin 13	CRD0061		SST, EDTA	500μL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: ND-80.1	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA Plasma:			
		or	heparin		for 15 minutes at 1000 x g.			ND-83.3			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			Heparin Plasma: ND-			
Interleukin 15	?	Blood	SST, EDTA	500uL	x g within 30 minutes of collection Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	68.4 0.0 - 5.4	pg/mL	On request	N/A
interieuxiii 13	'	(serum	plasma or	JOOUL	minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	0.0 - 5.4	pg/IIIL	On request	13/7
		or	heparin		for 15 minutes at 1000 x g.	repeated freeze-thaw cycles.	Simple Lila				
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
		piasina	piasilia		x g within 30 minutes of collection						
interleukin 16	CRD0173	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	-	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella		1 0.	·	, i
		or	heparin		for 15 minutes at 1000 x g.						
Interleukin 17	CRD0062	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	ND	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella		1 0.	·	, i
		or	heparin		for 15 minutes at 1000 x g.	·					
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
			·		x g within 30 minutes of collection						
Interleukin 18	Interleukin 18 CRD012	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	ND	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
Interded (in 22 / U.22)	CDD030C	Blood	CCT EDTA	500uL	x g within 30 minutes of collection	Channel and A 20°C A	Dustain	ND	/1	0	N/A
Interleukin-23 (IL23)	CRD0306		SST, EDTA plasma or	SUULL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	ND	pg/mL	On request	IN/A
		(serum or	heparin		for 15 minutes at 1000 x g.	repeated freeze-thaw cycles.	Simple Ella				
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
		piasiliaj	piasilia		x g within 30 minutes of collection						
Interleukin 1-Receptor 1	CRD0170	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum:	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	5397-36527		·	
		or	heparin		for 15 minutes at 1000 x g.			EDTA:			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			5201-36891			
					x g within 30 minutes of collection			Heparin:			
								4883-37865			
Interleukin 1-Receptor 2	CRD0171	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	-	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Interleukin 2	CRD0063		SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	-	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						

Interleukin 22	CRD0174	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: ND-30.7	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: ND-20.3			
		or	heparin		for 15 minutes at 1000 x g.			Heparin: ND-20.3			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Interleukin 23	CRD0306	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein		pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Interleukin 3	?	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein		pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Interleukin 33	CRD0175	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	ND	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Interleukin 4	CRD0064	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	ND	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella		' '		
		or	heparin		for 15 minutes at 1000 x g.	·	·				
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
Interleukin 5	?	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	0.087 – 0.657	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Interleukin 6	CRD0065	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	0.00 - 3.26	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Interleukin 6 (Siemens)	12371009	Blood	SST	250uL	Allow samples to clot for 30 minutes at	1 day at 2–8°C or	Siemens	ND - 5.9	pg/mL	On request	N/A
	01	(serum)			room temperature, centrifuge for 15	6 months at –20°C.	ImmuLite		T		
					minutes at 1000 x g.						

Test Description	Epic test		Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)	6 200	ranges	, ,		21/2
Interleukin 6 high sensitivity	CRD0066		SST, EDTA	500μL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum: 0.495-3.92	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.		EDTA plasma: 0.351-			
		or	heparin		for 15 minutes at 1000 x g.		kit)	3.48			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			Heparin plasma:			
		or urine			x g within 30 minutes of collection			0.414-3.97			
Interleukin 6R-a	CRD0177	Blood	SST. EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Urine: ND-3.48 Serum:	pg/mL	On request	N/A
interieuxiii on-a	CREOTI	(serum	plasma or	JOOUL	minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	34742-68077	PB/IIIL	Offrequest	11/1
		or	heparin		for 15 minutes at 1000 x g.	repeated freeze-triaw cycles.	Simple Lila	EDTA:			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			33037-63147			
		piasiria <i>j</i>	ріазіна		x g within 30 minutes of collection			Heparin:			
					x g within 30 minutes of collection			26517-55504			
Interleukin 7	CRD0067	Blood	SST, EDTA	500µL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 6.81-22.4	pg/mL	On request	N/A
		(serum	plasma or	·	minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA Plasma: 0.660-	, 0,		·
		or	heparin		for 15 minutes at 1000 x g.	·		4.73			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			Heparin Plasma:			
		or saliva	·		x g within 30 minutes of collection			1.89-5.87			
Interleukin 8		Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 6.7-16.2	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 3.06-5.06			
		or	heparin		for 15 minutes at 1000 x g.			Heparin: 4.64-10.7			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Interleukin 9	CRD0067	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store at -20°C to avoid loss of	Werfen DS2	ND	pg/mL	On request	N/A
		(serum	plasma,		minutes at room temperature, centrifuge	bioactive human IL-9. If	(Novus kit)				
		or	citrate		for 15 minutes at 1000 x g.	samples are to be run within 24					
		plasma)	plasma or		Plasma - Centrifuge for 15 minutes at 1000	hours, they may be stored at					
			heparin		x g within 30 minutes of collection	2–8°C					
Interleukin-18	12371008	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	-	pg/mL	On request	N/A
	48	(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Kidney Injury Molecule 1	CRD0180	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 20.8-106	pg/mL	On request	N/A
		(serum	plasma,		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 23.6-105			
		or	heparin		for 15 minutes at 1000 x g.			Heparin: 25.8-88.0			
		plasma)	plasma or		Plasma - Centrifuge for 15 minutes at 1000			Urine: 328-1928			
		or urine	univeral		x g within 30 minutes of collection.						

Test Description	Epic test code	Sample type	Sample tube	Minimum volume	Processing requirements (pre-analysis)	Storage requirements (pre-analysis)	Method	Reference ranges	Units	Frequency	Guide TAT
Leptin	CRD0068		SST, EDTA plasma or heparin plasma	500μL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 8914-67,394 EDTA Plasma: 7897- 70,208 Heparin Plasma:	pg/mL	On request	N/A
Leptin receptor	CRD0182	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Frozen (-80°C) - stable for 18 months. Samples can be freeze thawed up to 5 times.	Protein Simple Ella	- -	pg/mL	On request	N/A
Lipoprotein a	12371007 22	Blood (serum or plasma)	SST or citrate plasma	500μL	Serum - Allow samples to clot , centrifuge for 10 minutes at 3000 x g Plasma - Centrifuge for 10 minutes at 3000 x g	Store samples at ≤-20°C - strable for three months. Avoid repeated freeze-thaw cycles.	Werfen DS2 (Novus kit)	60-180	μg/ml	On request	N/A
L-Selectin/CD62L	12371009 40	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Werfen DS2 (Biotechne kit)		pg/mL	On request	N/A
М2РК	CRD0070	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Frozen (-80°C) - stable for 18 months. Samples can be freeze thawed up to 5 times.	Protein Simple Ella	-	pg/mL	On request	N/A
Macrophage Inflammatory protein 1a		Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	-	pg/mL	On request	N/A
Macrophage Inflammatory protein 1b		Blood (serum or plasma) or urine	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. Urine: Aseptically collect the first urine of the day (mid stream), voided directly into a sterile container. Centrifuge	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 295-854 EDTA: 310-906 Heparin: 345-1024 Urine: 623-21960	pg/mL	On request	N/A
Macrophage inflammatory protein 2	CRD0187	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 39.9-149 EDTA: 11.4-58.4 Heparin: 9.4-57.9	pg/mL	On request	N/A

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Macrophage migration inhibitory factor	CRD0185	Blood (serum or plasma)	SST, platelet poor EDTA plasma or platelet poor heparin	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 16536-34567 EDTA: 19580-41305 Heparin: 9379-29723	pg/mL	On request	N/A
Matrix metalloproteinase 7	CRD0194	Blood (serum or plasma)	plasma SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 1094-6619 EDTA: 1403-5119 Heparin:	pg/mL	On request	N/A
Matrix metalloproteinase 9	CRD0071	Blood (serum or plasma)	SST, platelet poor EDTA plasma or platelet poor heparin plasma	500μL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 167,760-469,934 PP EDTA Plasma: 34,588-136,743 PP heparin Plasma: 21,154-67,670	pg/mL	On request	N/A
Matrix metalloproteinase-1	12371009 16	Blood (serum or plasma)	SST or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Werfen DS2 (R&D Systems kit)	Serum: 0.912-9.340 Heparin: 0.179-1.000	ng/mL	On request	N/A
Matrix metalloproteinase-2	12371009 17	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Werfen DS2 (R&D Systems kit)	Serum: 139-356 EDTA: 141-278 Heparin: 155-342	ng/mL	On request	N/A
Matrix metalloproteinase-3	CRD0193	Blood (serum or plasma)	SST or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Werfen DS2 (R&D Systems kit)	Serum: 2.10-64.4 Heparin: 1.88-45.9	ng/mL	On request	N/A
Melatonin	12371007 25	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500μL	Do not use grossly hemolytic, icteric or grossly lipemic specimens. Samples appearing turbid should be centrifuged before testing.	Stable for 24h at 2-8°C, 3 months at ≤-20°C and 12 months ≤70°C	Werfen DS2 (IBL International kit)	03:00 AM: 18.5-180 08:00 AM: 3.8-80.4	pg/mL	On request	N/A

Test Description	Epic test code	Sample type	Sample tube	Minimum volume	Processing requirements (pre-analysis)	Storage requirements (pre-analysis)	Method	Reference ranges	Units	Frequency	Guide TAT
Monocyte chemotactic protein 3	CRD0184		SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: ND-5.97	pg/mL	On request	N/A
monocyte diremotadus protein d	0.1.50101	(serum	plasma or	30042	minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: ND-0.77	P6/ ···-	oequest	,
		or	heparin		for 15 minutes at 1000 x g.		opic ziid	Heparin: ND-3.12			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			11cpa1111.14D 3.12			
		piasiria	piasiria		x g within 30 minutes of collection						
Monocyte chemotactic protein-1	CRD0073	Blood	SST, EDTA	500µL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 163-485	pg/mL	On request	N/A
Monocyte themotaetic protein 1	CNDOO75	(serum	plasma,	300µL	minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA plasma:	P6/	Onrequest	'•,/.
		or	heparin		for 15 minutes at 1000 x g.	repeated freeze that eyeles.	Simple End	106-429			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			Heparin plasma:			
		piasiliaj	urine or CSF		x g within 30 minutes of collection			157-459			
Monokine induced by gamma interferon (CXCL9/MIG)	CRD0186	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 144-464	pg/mL	On request	N/A
Worldkine madea by gamma menerom (exces) wild)	CINDOISO	(serum	plasma or	JOULE	minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 164-564	Pg/IIIL	OffTequest	11/7
		or	heparin		for 15 minutes at 1000 x g.	repeated freeze-triaw cycles.	Simple Lila	Heparin: 236-700			
		plasma)			Plasma - Centrifuge for 15 minutes at 1000 X g.			11epa1111. 230-700			
		piasilia)	plasma		x g within 30 minutes of collection						
Myelin basic protein	12371009	Blood	SST or	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2		pg/mL	On request	N/A
Wyellii basic proteiri	08	(serum	EDTA	JOULE	minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(R&D Systems		Pg/IIIL	OffTequest	11/7
	08	'			for 15 minutes at 1000 x g.	repeated freeze-triaw cycles.	l' '				
		or	plasma				kit)				
		plasma)			Plasma - Centrifuge for 15 minutes at 1000						
Myeloperoxidase	CRD0075	Blood	SST, EDTA	500uL	x g within 30 minutes of collection Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 144-464	pg/mL	On request	N/A
iviyelopeloxidase	CKD0073		plasma or	JUULL	·	repeated freeze-thaw cycles.	Simple Ella	EDTA: 164-564	pg/IIIL	Offrequest	IN/A
		(serum			minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.			Heparin: 236-700			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
 Myostatin	12371007	Blood	SST, EDTA	500μL	x g within 30 minutes of collection Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum:	pg/mL	On request	N/A
iviyostatiii	29	(serum	plasma or	300με	minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(R&D Systems		pg/IIIL	Offrequest	IN/A
	2.5	'	heparin		for 15 minutes at 1000 x g.	repeated freeze-triaw cycles.	kit)	EDTA:1220-7300			
		or plasma)			Plasma - Centrifuge for 15 minutes at 1000 X g.		KIL)	Heparin:			
		piasilia)	plasma					1200-7640			
N a satul alusacaminidasa	12371007	Blood	Blood: SST,	500μL	x g within 30 minutes of collection	2° 0°C for up to 7 days	Werfen DS2	1200-7640	n a /nal	On request	N/A
N-acetyl glucosaminidase				500μι	Serum: Allow samples to clot for 2 hours at	2°-8°C for up to 7 days		•	ng/mL	On request	N/A
	30	(serum	EDTA		room temperature or overnight at 4°C	−20°C or below for longer	(Novus kit)				
		or	plasma,		before centrifugation for 15 min at	periods					
		plasma)	heparin		1000×g at 2~8°C. Blood collection tubes						
		or urine	plasma		should be non-endotoxin.						
			Urine:		Plasma: Centrifuge samples for 15 min at						
			Sterile		1000×g at 2^8 °C within 30 min of						
			container		collection. Hemolysed samples are not						
Neopterin	12371008	Blood	SST,	-	-	-	Manual		pg/mL	On request	N/A
	42	(serum	EDTA								
		or	plasma or								
		plasma)	urine.								
		or urino									

Test Description	Epic test	Sample type	Sample tube	Minimum volume	Processing requirements (pre-analysis)	Storage requirements (pre-analysis)	Method	Reference ranges	Units	Frequency	Guide TAT
Neurofilament Light	CRD0248		SST or EDTA plasma		Venous Primary sample collection tube should be centrifuged within 1 hour from venepuncture.	(pre-analysis)	Protein Simple Ella	ranges	pg/mL	On request	N/A
Neuropeptide Y	12371009 20	+ <u>' </u>	SST or EDTA plasma	-	•	•	Werfen DS2 (R&D Systems kit)	-	ng/mL	On request	N/A
Nitric oxide	12371007 33	Blood (serum or plasma), urine or CSF	Blood: SST, EDTA plasma or heparin plasma Urine/CSF: Sterile container	500μL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Werfen DS2 (R&D Systems kit)	Serum: 13-97 EDTA plasma: 10-92 Heparin plasma: 10- 90 Citrate plasma: 11-81 Urine: 369-2684	umol/L	On request	N/A
Neutrophil Gelatinase-Associated Lipocalin (NGAL)	CRD0304	Blood (serum or plasma), urine or CSF	Blood: SST, EDTA plasma or heparin plasma Urine/CSF: Sterile container	500μL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Bioporto kit	Lith-Hep (F): 0-104 Lith-Hep (M): 26-120 EDTA (F): 0-122 EDTA (M): 0-154 Sterile Universal (F): 0-176 Sterile Universal (M): 0-105 Lith-Hep (F): 0-104 Lith-Hep (M): 26-120 EDTA (Fe): 0-122 EDTA (M): 0-154 Sterile Universal (F): 0-176 Sterile Universal (M):	ng/mL	On request	N/A
NGAL / Lipocalin-2	CRD0079	Blood (serum or plasma)	SST or EDTA plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Bioporto kit		ng/mL	On request	N/A

	Test Description		Sample	Sample	Minimum	ŭ .	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
N	on-esterified fatty acid	code 12371007	type	tube	volume	(pre-analysis) Send-away test, see: http://www.viapath.co.u	(pre-analysis) k/our-tests/non-esterified-fatty-aci	ds-nefa-0	ranges		On request	N/A
		34										.,,
	Occludin	12371009	Blood	SST or	500uL	Serum - Allow samples to clot for 2 hours at	•	Werfen DS2	-	ng/mL	On request	N/A
		60	(serum	EDTA		room temperature, centrifuge for 15	≤1 month -20°C	(Novus kit)				
			or	plasma		minutes at 1000 x g.	≤3 months -80°C					
			plasma)			Plasma - Centrifuge for 15 minutes at 1000	Avoid repeated freeze-thaw					
						x g within 30 minutes of collection	cycles					
(Osteocalcin - Siemens	CRD0305		SST or	500uL	Serum - Allow samples to clot for 30	Osteocalcin is unstable. Keep	Siemens		ng/mL	On request	N/A
			(serum	EDTA		minutes at room temperature, centrifuge	blood at 2-8°C immediately	Imnmulite				
			or	plasma		for 15 minutes at 1000 x g.	after collection and during					
			plasma)			Plasma - Centrifuge for 15 minutes at 1000	processing. Serum should be					
						x g within 30 minutes of collection	processed and frozen at					
							≤–20°C within 4 hours of					
							collection. If collection and					
							processing is performed at					
							ambient temperature, serum					
							must be processed and tested					
							or frozen (≤ –20°C) within 2					
							hours of collection. Serum					
							should be frozen at ≤ -70°C for					
							storage > 1 month					
	Osteocalcin	12371009		SST or	500uL	Serum - Allow samples to clot for 30	Osteocalcin is unstable. Keep	Werfen DS2		ng/mL	On request	N/A
		21	(serum	EDTA		minutes at room temperature, centrifuge	blood at 2-8°C immediately	(QUIDEL kit)				
			or	plasma		for 15 minutes at 1000 x g.	after collection and during					
			plasma)			Plasma - Centrifuge for 15 minutes at 1000	processing. Serum should be					
						x g within 30 minutes of collection	processed and frozen at					
							≤–20°C within 4 hours of					
							collection. If collection and					
							processing is performed at					
							ambient temperature, serum					
							must be processed and tested					
							or frozen (≤ –20°C) within 2					
							hours of collection. Serum					
							should be frozen at ≤ -70°C for					
							storage > 1 month					

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Osteopontin	CRD0197	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Serum/plasma: Store samples	Protein	Serum:	pg/mL	On request	N/A
		(serum	plasma,		minutes at room temperature, centrifuge	at ≤-20°C. Avoid repeated	Simple Ella	24200-63800			
		or	heparin		for 15 minutes at 1000 x g.	freeze-thaw cycles.		EDTA:			
		plasma),	plasma,		Plasma - Centrifuge for 15 minutes at 1000	Urine: Aseptically collect the		57200-94100			
		urine or	urine or CSF		x g within 30 minutes of collection	first urine of the day (mid		Heparin:			
Oxidative LDL	12371008	Blood	SST or	500uL	Serum - Allow samples to clot for 30	Samples can be stored at -80°C	Werfen DS2	-	pg/mL	On request	N/A
	47	(serum	EDTA		minutes at room temperature, centrifuge	for at least 6 months. Avoid	(Mercodia kit)				
		or	plasma		for 15 minutes at 1000 x g.	repeated freezing and thawing.					
		plasma)			Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Oxytocin	12371009	Blood	SST or	500uL	Serum - Allow samples to clot for 2 hours at	•	Werfen DS2	-	ng/mL	On request	N/A
	23	(serum	EDTA		room temperature, centrifuge for 15	≤1 month -20°C	(Novus kit)				
		or	plasma		minutes at 1000 x g.	≤3 months -80°C					
		plasma)			Plasma - Centrifuge for 15 minutes at 1000	Avoid repeated freeze-thaw					
					x g within 30 minutes of collection	cycles					
P53 protein	12371008	Blood	SST	500uL	Serum - Allow samples to clot for 2 hours at	Store samples at ≤-20°C. Avoid	Werfen DS2	ND	pg/mL	On request	N/A
	43	(serum)			room temperature, centrifuge for 15	repeated freeze-thaw cycles.	(IBL kit)				
					minutes at 1000 x g.						
					Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Pancreatic polypeptide	12371009	Blood	SST or	500uL	Serum - Allow samples to clot for 2 hours at	7 days at 2-8°C	Werfen DS2	-	pg/mL	On request	N/A
	27	(serum	EDTA		room temperature, centrifuge for 15	≤1 month -20°C	(Novus kit)				
		or	plasma		minutes at 1000 x g.	≤3 months -80°C					
		plasma)			Plasma - Centrifuge for 15 minutes at 1000	Avoid repeated freeze-thaw					
					x g within 30 minutes of collection	cycles					
Pentraxin-3 (TSG-14)	CRD0204	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 747-2846	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 272-2219			
		or	heparin		for 15 minutes at 1000 x g.			Heparin: 396-2062			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Peptide YY	12371007	Blood	SST serum	500μL	Serum - Allow samples to clot for 2 hours at	7 days at 2-8°C	Werfen DS2	-	pg/mL	On request	N/A
	36	(serum	EDTA		room temperature, centrifuge for 15	≤1 month -20°C	(Novus kit)				
		or	plasma		minutes at 1000 x g.	≤3 months -80°C					
		plasma)	Heparin		Plasma - Centrifuge for 15 minutes at 1000	Avoid repeated freeze-thaw					
		· ·	plasma		x g within 30 minutes of collection	cycles					

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Periostin	CRD0084	Blood	SST, EDTA	500μL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum:	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	11,944-28,847			
		or	heparin		for 15 minutes at 1000 x g.			EDTA Plasma:			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			10,675-28,419			
					x g within 30 minutes of collection			Heparin plasma:			
								10,567-28,935			
Placental growth factor	CRD0201	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum: 295-854	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	EDTA: 310-906			
		or	heparin		for 15 minutes at 1000 x g.			Heparin: 345-1024			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			Urine: 623-21960			
		or urine			x g within 30 minutes of collection.						
					e: Aseptically collect the first urine of the						
					day (mid stream), voided directly into a						
					sterile container. Centrifuge						
					to remove particulate matter.						
Platelet-derived GF BB	CRD0199	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	-	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection						
Podocin	12371009	Blood	SST or	500uL	Serum - Allow samples to clot for 2 hours at	7 days at 2-8°C	Manual /	-	pg/mL	On request	N/A
	25	(serum	EDTA		room temperature, centrifuge for 15	≤1 month -20°C	Werfen				
		or	plasma		minutes at 1000 x g.	≤3 months -80°C					
		plasma)			Plasma - Centrifuge for 15 minutes at 1000	Avoid repeated freeze-thaw					
					x g within 30 minutes of collection	cycles					
Pregnancy-specific beta-1-glycoprotein 1	12371009	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	ND	ng/mL	On request	N/A
	28	(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(R&D Systems				
		or	heparin		for 15 minutes at 1000 x g.		kit)				
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
Procollagen I C-Terminal Propeptide	12371007	Blood	SST, EDTA	500μL	Serum - Allow samples to clot for 2 hours at	7 days at 2-8°C	Werfen DS2	-	pg/mL	On request	N/A
	38	(serum	plasma or		room temperature, centrifuge for 15	≤1 month -20°C	(Novus kit)				
		or	heparin		minutes at 1000 x g.	≤3 months -80°C					
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000	Avoid repeated freeze-thaw					
					x g within 30 minutes of collection	cycles					
Procollagen type III N-terminal propeptide	12371007	Blood	SST, EDTA	500μL	Serum - Allow samples to clot for 2 hours at	8 days at 2-8°C	Werfen DS2	-	pg/mL	On request	N/A
	40	(serum	plasma or		room temperature, centrifuge for 15	≤1 month -20°C	(Novus kit)				
		or	heparin		minutes at 1000 x g.	≤3 months -80°C					
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000	Avoid repeated freeze-thaw					
					x g within 30 minutes of collection	cycles					

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
P-Selectin	12371009	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum: 43.5-119	ng/mL	On request	N/A
	41	(serum	plasma,		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(R&D Systems	EDTA: 18.3-57.4			
		or	heparin		for 15 minutes at 1000 x g.		kit)	Heparin: 18.6-50.6			
		plasma)	plasma or		Plasma - Centrifuge for 15 minutes at 1000			Citrate: ND-37.9			
			citrate		x g within 30 minutes of collection						
			plasma								
Randox Cytokine Array (Custom X): Interleukin-2 (IL-			SST or EDTA	500ul	Carry out sample preparation in accordance	Store samples at ≤-20°C. Avoid	Randox	IL-2: 0.00 - 2.76	pg/mL	On request	N/A
2), Interleukin-4 (IL-4), Interleukin-6 (IL-6), Interleukin-		(serum	plasma		with collection tube manufacturer's	repeated freeze-thaw cycles.	Evidence	IL-4: 0.15 - 1.28			
8 (IL-8), Interleukin-10 (IL-10), Vascular Endothelial		or			instructions. Ideally samples should be non- haemolysed and non-lipaemic.		Investigator	IL-6: 0.00 - 2.19			
Growth Factor (VEGF), Interferon Gamma (IG),		plasma)			naemorysed and non-npaemic.			IL-8: 0.00 - 24.56			
Tumour Necrosis Factor Alpha (TNFa), Interleukin 1								IL-10: 0.00 - 0.34			
Alpha (IL-1-a), Interleukin 1 Beta (IL-1B), Monocyte								VEGF: 0.0 - 153.40			
Chemotactic Protein-1 (MCP-1), Epidermal Growth								INF-γ: 0.00 - 0.11			
Factor (EGF), Interleukin 1 Receptor Antagonist (IL-1								TNFα: 0.46 - 2.19			
RA)								IL-1α: 0.00 - 0.53			
								IL-1β: 0.04 - 1.56			
								MCP-1: 0 - 280.53			
								EGF 8.77 - 95.11			
								IL1RA:			
Randox Cytokine Array (High Sensitivity): Interleukin-	CRD0245	Blood	SST or EDTA	500ul	Carry out sample preparation in accordance	Store samples at ≤-20°C. Avoid	Randox	77 78 - 178 81 -	pg/mL	On request	N/A
2 (IL-2), Interleukin-4 (IL-4), Interleukin-6 (IL-6),	CNDUZ43	(serum	plasma	300ui	with collection tube manufacturer's	repeated freeze-thaw cycles.	Evidence		Pg/IIIL	Offrequest	N/A
Interleukin-8 (IL-8), Interleukin-10 (IL-10), Vascular		or	ριασιτία		instructions. Ideally samples should be non-	repeated freeze-thaw cycles.	Investigator				
Endothelial Growth Factor (VEGF), Interferon Gamma		plasma)			haemolysed and non-lipaemic.		investigator				
(IG), Tumour Necrosis Factor Alpha (TNFa), Interleukin		piasiria)									
1 Alpha (IL-1-a), Interleukin 1 Beta (IL-1B), Monocyte											
Chemotactic Protein-1 (MCP-1), Epidermal Growth											
Factor (EGF)											
ractol (EGF)											

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Randox Cytokine Array 1 (Normal Sensitivity):	CRD0244	Blood	SST or EDTA	500ul	Carry out sample preparation in accordance	Store samples at ≤-20°C. Avoid	Randox	Serum &plasma	pg/mL	On request	N/A
Interleukin-2 (IL-2), Interleukin-4 (IL-4), Interleukin-6		(serum	plasma		with collection tube manufacturer's	repeated freeze-thaw cycles.	Evidence	IL-2: 0.00 - 2.42			
(IL-6), Interleukin-8 (IL-8), Interleukin-10 (IL-10),		or			instructions. Ideally samples should be non-		Investigator	0.69 - 2.22			
Vascular Endothelial Growth Factor (VEGF), Interferon		plasma)			haemolysed and non-lipaemic.			IL-4: 0.88 - 2.63			
Gamma (IG), Tumour Necrosis Factor Alpha (TNFa),								0.82 - 2.98			
Interleukin 1 Alpha (IL-1-a), Interleukin 1 Beta (IL-1B),								IL-6: 0.00 - 2.13			
Monocyte Chemotactic Protein-1 (MCP-1), Epidermal								0.00 - 2.21			
Growth Factor (EGF)								IL-8: 0.95 - 14.11			
								0.05 - 6.70			
								IL-10: 0.04 - 1.05			
								0.14 - 1.08			
								VEGF: 0.00 - 211.65			
								0.00 - 56.17			
								IFN-γ: 0.00 - 1.24			
								0.03 - 0.58			
								TNF-α: 2.28 - 7.81			
								1.47 - 5.93			
								IL-1α: 0.00 - 0.27			
								0.02 - 0.27			
								IL-1β: 0.00 - 2.34			
								0.00 - 2.65			
								MCP-1: 44.62 -			
								395.52			
								12.98 - 136.18			
								EGF: 54.06 - 196.88			

Test Description	Epic test	Sample type	Sample tube	Minimum volume	Processing requirements (pre-analysis)	Storage requirements (pre-analysis)	Method	Reference ranges	Units	Frequency	Guide TAT
Randox Cytokine Array V: Interleukin-3 (IL-3), Interleukin-7 (IL-7), Interleukin-12 P70 (IL-12 P70), Interleukin-13 (IL-13), Interleukin-23 (IL-23)	CRD0247		SST or EDTA plasma		Carry out sample preparation in accordance with collection tube manufacturer's instructions. Ideally samples should be nonhaemolysed and non-lipaemic.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Randox Evidence Investigator	Serum & plasma IL-3: <9.544	pg/mL	On request	N/A
Rantes	CRD0206	Blood (serum or plasma)	SST, platelet poor EDTA plasma or platelet	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 18678-119117 EDTA: 203-1899 Heparin: 752-9720	pg/mL	On request	N/A
Receptor for advanced glycation end product (RAGE)	CRD0205	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 538-2096 EDTA: 818-1777 Heparin: 668-1764	pg/mL	On request	N/A
Regenerating islet-derived-3-alpha (REG3)	CRD0207	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 3136-22856 EDTA: 3455-24482 Heparin: 3522-25352	pg/mL	On request	N/A
Resistin	CRD0088	Blood (serum or plasma)	SST serum EDTA plasma Heparin plasma	500μL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 4511-10,534 EDTA plasma: 4473- 10,822 Heparin plasma: 4733-11,185	pg/mL	On request	N/A

Retinol binding protein (RBP)	?	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum:	ng/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(R&D Systems	12700-48600			
		or	heparin		for 15 minutes at 1000 x g.		kit)	EDTA:			
		plasma),	plasma		Plasma - Centrifuge for 15 minutes at 1000			11900-48300			
		saliva or			x g within 30 minutes of collection.			Heparin:			
		urine			Saliva - Collect saliva using a collection			12200-43000			
					device such as a Salivette or equivalent.			Urine:16.4-252			
					Saliva collector must not have any protein			Saliva: 3.11-29.6			
					binding or filtering capabilities.						
					Urine - Aseptically collect the first urine of						
					the day (mid-stream), voided directly into a						
					sterile container.						

Test Description	Epic test	Sample type	Sample tube	Minimum volume	Processing requirements (pre-analysis)	Storage requirements (pre-analysis)	Method	Reference ranges	Units	Frequency	Guide TAT
Salivary 170H-progesterone	12371007 49		Saliva	500uL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial.	Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Guide referece ranges available from manufacturer, laboratory to establish its own range.	pg/mL	On request	N/A
Salivary Amylase	CRD0090	Saliva	Salivette	500μL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial.	Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Guide referece ranges available from manufacturer, laboratory to establish its own range.	U/mL	On request	N/A
Salivary androstenedione	12371009 35	Saliva	Saliva	500uL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial.	Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Guide referece ranges available from manufacturer, laboratory to establish its own range.	pg/mL	On request	N/A

Salivary Cortisol	12371006	Saliva	Salivette	500μL	Avoid sample collection within 60 minutes	Refrigerate sample within 30	Werfen DS2	Guide referece	ug/dL	On request	N/A
	78				after eating a major meal or within 12	minutes, and freeze at or below	(Salimetrics	ranges available			
					hours after consuming alcohol. Avoid acidic	-20ºC within 4 hours	kit)	from manufacturer,			
					or high sugar foods, to minimise rinse	of collection. (Samples may be		laboratory to			
					mouth thoroughly with water 10 minutes	stored at -20°C for up to 6		establish its own			
					before sample is collected. Collect whole	months.)		range.			
					saliva by unstimulated passive drool.						
					Donors tilt the head forward, allowing the						
					saliva to pool on the floor of the mouth,						
					then pass the saliva through the SalivaBio						
					Collection Aid (SCA) into a polypropylene						
					vial.						

Test Description	Epic test		Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
Salivary Cotinine	code 12371007 44	type Saliva	tube Salivette	volume 500μL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial.	(pre-analysis) Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	ranges Guide referece ranges available from manufacturer, laboratory to establish its own range.	ng/mL	On request	N/A
Salivary C-reactive protein (CRP)	?	Saliva	Saliva	500uL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial.	Refrigerate sample within 30 minutes, and freeze at or below -20ºC within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Guide referece ranges available from manufacturer, laboratory to establish its own range.	pg/mL	On request	N/A
Salivary dehydroepiandrosterone sulphate (DHEAS)	?	Saliva	Saliva	500uL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial. Samples visibly contaminated with blood should be recollected.	Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Guide referece ranges available from manufacturer, laboratory to establish its own range.	pg/mL	On request	N/A

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Salivary DHEA	12371007 45	Saliva	Salivette	500μL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial. Samples visibly contaminated with blood should be recollected.	Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Guide referece ranges available from manufacturer, laboratory to establish its own range.	pg/mL	On request	N/A
Salivary estriol	12371009 43	Saliva	Saliva	300uL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial. Samples visibly contaminated with blood should be recollected.	Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Premenopausal adult females AM: 0 - 16.4 Premenopausal adult females PM: 0 - 4.8 Guide from manufacturer, laboratory to establish its own range.	pg/mL	On request	N/A
Salivary estrone	12371009 42	Saliva	Saliva	500uL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial. Samples visibly contaminated with blood should be recollected.	Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Guide referece ranges available from manufacturer, laboratory to establish its own range.	pg/mL	On request	N/A

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Salivary IgA	12371007 46	Saliva	Salivette	500μL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial. Samples visibly contaminated with blood should be recollected.	Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Guide referece ranges available from manufacturer, laboratory to establish its own range.	μg/mL	On request	N/A
Salivary melatonin	12371007 47	Saliva	Salivette	500μL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial. Samples visibly contaminated with blood should be recollected.	Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Guide referece ranges available from manufacturer, laboratory to establish its own range.	pg/mL	On request	N/A
Salivary oestradiol	12371007 48	Saliva	Salivette	500μL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial. Samples visibly contaminated with blood should be recollected.	Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Guide referece ranges available from manufacturer, laboratory to establish its own range.	pg/mL	On request	N/A

Test Description		Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
Salivary progesterone	code 12371007 49	type Saliva	Polypropylene vial	volume 500μL	(pre-analysis) Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic	(pre-analysis) Refrigerate sample within 30 minutes, and freeze at or below -20°C within 4 hours	Werfen DS2 (Salimetrics kit)	ranges Guide referece ranges available from manufacturer,	pg/mL	On request	N/A
					or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial. Samples visibly contaminated with blood should be recollected.	of collection. (Samples may be stored at -20°C for up to 6 months.)		laboratory to establish its own range.			
Salivary testosterone	12371007 50	Saliva	Salivette	500μL	Avoid sample collection within 60 minutes after eating a major meal or within 12 hours after consuming alcohol. Avoid acidic or high sugar foods, to minimise rinse mouth thoroughly with water 10 minutes before sample is collected. Collect whole saliva by unstimulated passive drool. Donors tilt the head forward, allowing the saliva to pool on the floor of the mouth, then pass the saliva through the SalivaBio Collection Aid (SCA) into a polypropylene vial. Samples visibly contaminated with blood should be recollected.	Refrigerate sample within 30 minutes, and freeze at or below -20ºC within 4 hours of collection. (Samples may be stored at -20°C for up to 6 months.)	Werfen DS2 (Salimetrics kit)	Guide referece ranges available from manufacturer, laboratory to establish its own range.	pg/mL	On request	N/A
Sclerostin	12371009 45	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum - Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles. Grossly haemolysed samples should not be used.	Werfen DS2 (R&D Systems kit)	Serum: 67-300 EDTA: 200-712 Heparin: 222-805	pg/mL	On request	N/A

Serotonin 123710 51		Blood: SST, 500µL platelet rich EDTA or heparin plasma Urine: 24h sterile collection	Patients should avoid seratonin rich foods, certain medications may stimulate seratonin levels in blood. Collect samples as per local protcol, grossly haemolysed, lipaemic or icteric samples must not be used. A platelet extract can be prepared.	6h at 2-8°C and 3 months < -	(IBL International kit)	Serum: 30-200 plasma: 1.8-7.5 platelets: 217-861 ng/10 ⁹ platelets urine: ≤200 ug/d	ng/mL	On request	N/A
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Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Serpin A6/cortisol binding globulin	12371008	Blood	SST or EDTA	500uL	Serum - Allow samples to clot for 2 hours at	7 days at 2-8°C	Werfen DS2		pg/mL	On request	N/A
	71	(serum	plasma		room temperature, centrifuge for 15	≤1 month -20°C	(Novus kit)				
		or			minutes at 1000 x g.	≤3 months -80°C					
		plasma)			Plasma - Centrifuge for 15 minutes at 1000	Avoid repeated freeze-thaw					
					x g within 30 minutes of collection.	cycles					
Soluble receptor activator of nuclear factor-kappa B	CRD0099	Blood	SST or EDTA	500uL	Serum - Allow samples to clot for 2 hours at	Store samples at ≤-20°C. Avoid	-		pg/mL	On request	N/A
ligand		(serum	plasma		room temperature, centrifuge for 15	repeated freeze-thaw cycles.					
		or			minutes at 1000 x g.						
		plasma)			Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						
Somatostatin	12371009	Blood	SST, EDTA	500uL	Serum - Allow samples to clot for 2 hours at	8 days at 2-8°C	Werfen DS2		pg/mL	On request	N/A
	44	(serum	plasma or		room temperature, centrifuge for 15	≤1 month -20°C	(Novus kit)				
		or	heparin		minutes at 1000 x g.	≤3 months -80°C					
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000	Avoid repeated freeze-thaw					
					x g within 30 minutes of collection.	cycles					
ST2 (IL-1 R4)	12371008		SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum:	pg/mL	On request	N/A
	46	(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	5397-36527			
		or	heparin		for 15 minutes at 1000 x g.			EDTA:			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			5201-36891			
					x g within 30 minutes of collection.			Heparin:			
Character Control	42274000	DI. I	CCT EDTA	F00 I	6 411 115 20	5	W. C. DC3	4883-37865		0	21/2
Stem cell factor	12371009		SST, EDTA	500uL	Serum - Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum (male):	pg/mL	On request	N/A
	36	(serum	plasma,		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(R&D Systems	2205-11149			
		or	heparin		for 15 minutes at 1000 x g.	Grossly lipaemic samples	kit)	Serum (female):			
		plasma)	plasma or		Plasma - Centrifuge for 15 minutes at 1000	should not be used.		3877-77273			
Cture and 1 - 11 deals and forten 1 - (CVC) 12 (CDF 1 a)	CDD0343	Disad	citrate	F00I	x g within 30 minutes of collection.	Standard 20°C Audid	Durata in	Values in	/1	0:- :	N1/0
Stromal cell-derived factor 1a (CXCL12/SDF-1 $lpha$)	CRD0213		Platelet	500uL	Serum: Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	EDTA:	pg/mL	On request	N/A
		(plasma)	1 '		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	1763-2781			
			plasma or		for 15 minutes at 1000 x g.	Grossly haemolysed samples		Heparin:			
			platelet		Plasma - Centrifuge for 15 minutes at 1000	should not be used.		1691-2593			
			poor		x g within 30 minutes of collection.						
			heparin								
			plasma								

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
T.Inhib. Metalloproteinases-2 (TIMP-2)	CRD0227	Blood (serum or plasma), saliva or	Serum, EDTA plasma, heparin plasma.	500uL	Serum: Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Serum/plasma: Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles. Grossly icteric or haemolysed samples should not be used.	Protein Simple Ella	Serum: 33300-87100 EDTA: 35100-80500 Heparin:	pg/mL	On request	N/A
T.inhib. metalloproteinases-3 (TIMP-3)	12371009 53		SST, EDTA plasma or heparin plasma	500uL	Serum: Allow samples to clot for about 4 hours at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles. Grossly haemolysed samples	Werfen DS2 (Novus kit)	-	pg/mL	On request	N/A
T.inhib. metalloproteinases-4 (TIMP-4)	12371009 54	Blood (serum or plasma) or human milk	SST, EDTA plasma or heparin plasma	500uL	Serum: Allow samples to clot for about 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma: Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. Human Milk: Centrifuge for 15 minutes at 1000 x g at 2-8 °C. Collect the aqueous fraction and centrifuge twice more.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Werfen DS2 (R&D Systems kit)	Serum: 460-2661 EDTA: 516-2476 Heparin: 664-2328 Milk: 25700-111000	pg/mL	On request	N/A
Thrombomodulin/BDCA-3	12371009 49	Blood (serum or plasma) or urine	SST, EDTA plasma, heparin plasma, citrate plasma or urine	500uL	Serum: Allow samples to clot for about 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma: Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. Urine: Aseptically collect the first urine of the day (mid-stream), voided directly into a sterile container. Centrifuge to remove particulate matter.		Werfen DS2 (R&D Systems kit)	Serum: 2866-5318 EDTA: 2815-5407 Heparin: 2805-5479 Citrate: 2353-4541 Urine: 3540-29100	pg/mL	On request	N/A

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Thrombopoeitin	12371009 51	Blood (serum or platelet poor plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum: Allow samples to clot for about 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Platelet-poor Plasma - Collect plasma on ice. Centrifuge at 2-8 °C for 15 minutes at 1000 x g within 30 minutes of collection. An additional centrifugation step of the plasma at 10,000 x g for 10 minutes at 2-8 °C is recommended for complete platelet removal.		Werfen DS2 (R&D Systems kit)	Serum: ND-228 EDTA: ND-196 Heparin: ND-168	pg/mL	On request	N/A
Thrombospondin-1	CRD0225	Blood (serum or plasma)	Serum, platelet- poor EDTA plasma or platelet- poor heparin plasma	500uL	Serum: Allow samples to clot for about 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Platelet-poor Plasma - Collect plasma on ice. Centrifuge at 2-8 °C for 15 minutes at 1000 x g within 30 minutes of collection. An additional centrifugation step of the plasma at 10,000 x g for 10 minutes at 2-8 °C is recommended for complete platelet removal.		Protein Simple Ella	-	pg/mL	On request	N/A
Thromboxane	12371009 47	Blood (serum or plasma) or urine	SST, EDTA plasma, heparin plasma or urine	500uL	Serum: Allow samples to clot for about 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma: Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. Urine: Aseptically collect the first urine of the day (mid-stream), voided directly into a sterile container. Centrifuge to remove particulate matter.		Werfen DS2 (R&D Systems kit)	Serum: 1.1-11.3 EDTA: ND-10.1 Heparin: ND-9.26 Urine: 3.5-72.5	ng/mL	On request	N/A
Tissue inhibitor of metalloproteinases-1	CRD0102	Blood (serum or plasma) or CSF	SST, EDTA plasma or heparin plasma	500μL	Serum: Allow samples to clot for about 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Platelet-poor Plasma - Collect plasma on ice. Centrifuge at 2-8 °C for 15 minutes at 1000 x g within 30 minutes of collection. An additional centrifugation step of the plasma at 10,000 x g for 10 minutes at 2-8 °C is recommended for complete platelet removal.	repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 40509-145619 EDTA plasma: 36037-168192 Heparin plasma: 38827-71776 CSF: 44071-673106	pg/mL	On request	N/A

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Tissue necrosing factor a	CRD0103	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500μL	Serum: Allow samples to clot for about 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Platelet-poor Plasma - Collect plasma on	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 4.05-8.34 EDTA plasma: 2.45-6.16 Heparin plasma:	pg/mL	On request	N/A
		or broncho alveolar fluid			ice. Centrifuge at 2-8 °C for 15 minutes at 1000 x g within 30 minutes of collection. An additional centrifugation step of the plasma at 10,000 x g for 10 minutes at 2-8 °C is recommended for complete platelet			2.87-7.99			
TNF alpha high sensitivity	CRD0104	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500μL	removal Serum: Allow samples to clot for about 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Platelet-poor Plasma - Collect plasma on ice. Centrifuge at 2-8 °C for 15 minutes at	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 7.78-12.2 EDTA plasma: 4.94-9.68 Heparin plasma: 5.06-9.62	pg/mL	On request	N/A
TNF receptor 1	CRD0105	Blood (serum or plasma)	Serum, EDTA plasma, heparin plasma or CSF	500uL	Serum: Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles. Grossly haemolysed or icteric samples should not be used.	Protein Simple Ella	Serum: 1065-2890 EDTA: 808-2790 Heparin: 879-3040 CSF: 742-1416	pg/mL	On request	N/A
TNF receptor 2 (TNF RII/TNFRSF1B)	CRD0230	Blood (serum or plasma)	Serum, EDTA plasma or heparin plasma	500uL	Serum: Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles. Grossly haemolysed or icteric samples should not be used.	Protein Simple Ella	Serum: 1743-4198 EDTA: 1320-4758 Heparin: 1263-2995	pg/mL	On request	N/A
Transforming growth factor alpha	12371009 48	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum: Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Werfen DS2 (R&D Systems kit)	Serum: ND-32 Plasma: ND	pg/mL	On request	N/A
Transforming growth factor B-1	CRD0106	Blood (serum or plasma)	SST, platelet poor EDTA plasma or platelet poor heparin plasma	500μL	Serum: Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles.	Protein Simple Ella	Serum: 30120-61578 PP EDTA: 1046-31915 PP heparin 1217-13398	pg/mL	On request	N/A

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Transforming growth factor B-2	12371007	Blood	SST, EDTA	500μL	Serum: Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Werfen DS2	Serum: ND-873	pg/mL	On request	N/A
	60	(serum	plasma,		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	(R&D Systems	EDTA: ND-442			
		or	heparin		for 15 minutes at 1000 x g.		kit)	Citrate: ND-320			
		plasma)	plasma or		Plasma - Centrifuge for 15 minutes at 1000			Heparin: ND-454			
			citrate		x g within 30 minutes of collection.						
Trappin-2/elafin	CRD0155	Blood	SST, EDTA	500uL	Serum: Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum:	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	5971-18525			
		or	heparin		for 15 minutes at 1000 x g.			EDTA: 6374-17637			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			Heparin:			
					x g within 30 minutes of collection.			6571-16072			
Tumor necrosis factor alpha (TNF-a)	CRD0108	Blood	SST, EDTA	500uL	Serum: Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	6.10-13.58	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella				
		or	heparin		for 15 minutes at 1000 x g.						
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000						
					x g within 30 minutes of collection.						
Uromodulin	CRD0231	Blood	SST, EDTA	500uL	Serum: Allow samples to clot for 2 hours at	7 days at 2-8°C	Werfen DS2	-	ng/mL	On request	N/A
		(serum	plasma or		room temperature, centrifuge for 15	≤1 month -20°C	(Novus kit)				
		or	heparin		minutes at 1000 x g.	≤3 months -80°C					
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000	Avoid repeated freeze-thaw					
					x g within 30 minutes of collection.	cycles					
Urinary Dickkopf-related protein 3 (uDKK3)	CRD0309	Blood	SST, EDTA	500uL			Immundiagno	-	ng/mL	On request	N/A
		(serum	plasma or		Preferably, the central fraction of the	Must be transported on dry ice.	stik				
		or	heparin		morning urine is collected in a suitable						
		plasma)	plasma		container with a tight-fitting cap.						
Vascular cell adhesion molecule-1	CRD0109	Blood	SST, EDTA	500μL	Serum: Allow samples to clot for 30	Store samples at ≤-20°C. Avoid	Protein	Serum:	pg/mL	On request	N/A
		(serum	plasma or		minutes at room temperature, centrifuge	repeated freeze-thaw cycles.	Simple Ella	315808-973354			
		or	heparin		for 15 minutes at 1000 x g.			EDTA:			
		plasma)	plasma		Plasma - Centrifuge for 15 minutes at 1000			321648-879975			
		or CSF			x g within 30 minutes of collection.			Heparin:			
								361463-768399			
								CSF:			
								21508-74820			

Test Description	Epic test	Sample	Sample	Minimum	Processing requirements	Storage requirements	Method	Reference	Units	Frequency	Guide TAT
	code	type	tube	volume	(pre-analysis)	(pre-analysis)		ranges			
Vascular endothelial growth factor	CRD0110	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum: Allow samples to clot for 2 hours at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000	repeated freeze-thaw cycles.	Protein Simple Ella	0.00-450.64	pg/mL	On request	N/A
Vascular endothelial GF C	CRD0232	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	x g within 30 minutes of collection. Serum: Allow samples to clot for 2 hours at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000		Protein Simple Ella	-	pg/mL	On request	N/A
VEGF Receptor 1/FLT-1	CRD0162	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	x g within 30 minutes of collection. Serum: Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles. Grossly heamolysed or icteric samples not suitable.	Protein Simple Ella	Serum: 84.4-165 EDTA: 73.8-199 Heparin: 65.0-140	pg/mL	On request	N/A
VEGF receptor 2	CRD0233	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500uL	Serum: Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles. Grossly heamolysed or icteric samples not suitable.	Protein Simple Ella	Serum: 8968-12737 EDTA: 8355-13394 Heparin: 8246-12767	pg/mL	On request	N/A
VEGF receptor 3	CRD0163	Blood (serum or plasma)	SST or citrate plasma	500uL	Serum: Allow samples to clot for 2 hours at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	6 days at 2-8°C ≤1 month -20°C ≤3 months -80°C Avoid repeated freeze-thaw cycles	Werfen DS2 (Novus kit)	Serum: 33-167 Citrate: 31-200	ng/mL	On request	N/A
Visfatin	CRD0111	Blood (serum or plasma)	SST, EDTA plasma or heparin plasma	500μL	Serum: Allow samples to clot for 2 hours at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	7 days at 2-8°C ≤1 month -20°C ≤3 months -80°C Avoid repeated freeze-thaw cycles	Werfen DS2 (Novus kit)	-	ng/mL	On request	N/A
Vitamin D binding protein	CRD0112	Blood (serum or plasma) or urine	Blood: SST, EDTA plasma or heparin plasma Urine: Sterile universal	500μL	Serum: Allow samples to clot for 30 minutes at room temperature, centrifuge for 15 minutes at 1000 x g. Plasma - Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection.	Store samples at ≤-20°C. Avoid repeated freeze-thaw cycles. Grossly heamolysed or icteric samples not suitable.	Protein Simple Ella	Serum: 92.9-225 EDTA: 95.0-243 Heparin: 88.4-293 Urine: 1040-75244	μg/mL	On request	N/A