

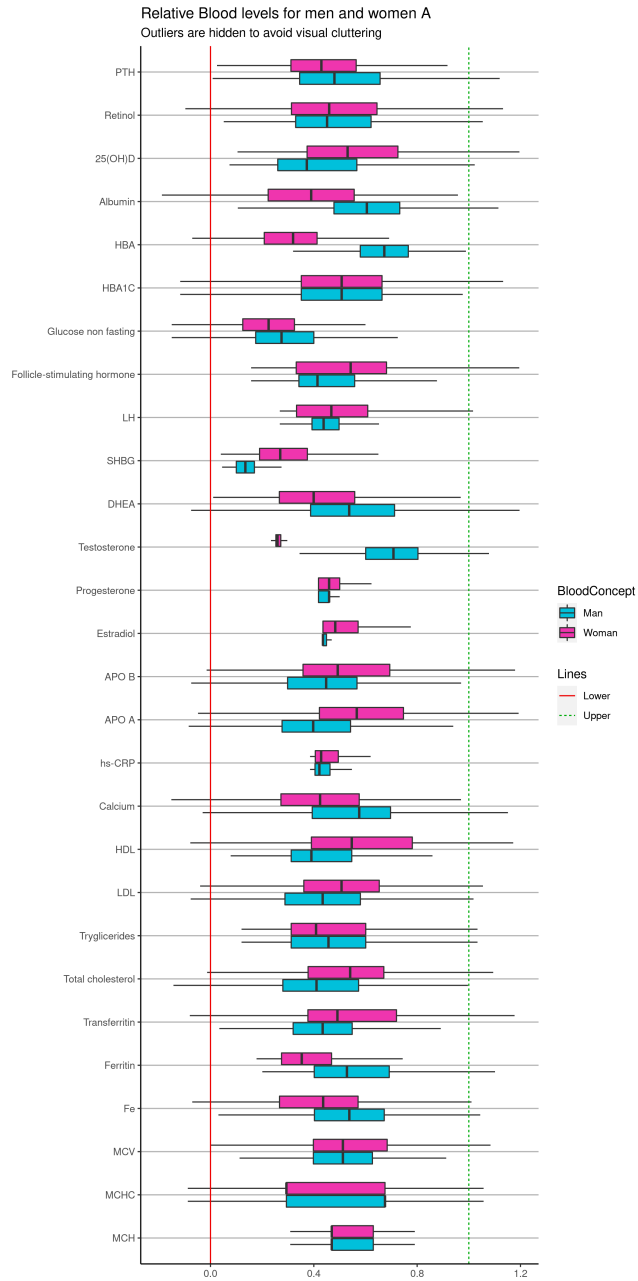
## Blood serum and biomarkers summary

Description	Short	Unit	Men Lower Limit	Men Upper Limit	Women Lower Limit	Women Upper Limit	$\bar{x}_{men}$	$\bar{x}_{women}$	Significance	$Men_{out}$	$Women_{out}$
Mean corpuscular hemoglobin (pg). EDTA whole blood	MCH	pg	26.08	32.3	26.08	32.3	29.25	29.12	ns	2.2%	5%
Mean corpuscular hemoglobin concentration (g/dL). EDTA whole blood	MCHC	g/dL	32.23	34.85	32.23	34.85	33.68	33.39	****	4.2%	5.3%
Mean corpuscular volume (fL). EDTA whole blood	MCV	fL	78.03	95.53	78.03	95.53	87.09	86.43	*	2.1%	5.8%
Fe (μmol/L). Serum	Fe	umol/L	2.09	31.69	2.09	31.69	18.47	15.18	****	3.8%	0.5%
Ferritin (ug/L). Serum	Ferritin	ug/L	-21.95	112.37	-21.95	112.37	57.6	31.42	****	6.3%	0%
Transferrin (g/L). Serum	Transferritin	g/L	2.04	3.79	2.04	3.79	2.83	3.02	****	2.9%	0.7%
Total cholesterol (mmol/L). Serum	Total cholesterol	mmol/L	2.54	5.61	2.54	5.61	3.91	4.25	****	3.4%	0.2%
Triglycerides (mmol/L). Serum	Tryglicerides	mmol/L	0.05	2.13	0.05	2.13	1.13	1.05	*	5.9%	0%
Low density lipoprotein cholesterol (mmol/L). Serum	LDL	mmol/L	1.01	3.75	1.01	3.75	2.3	2.46	***	4%	0.5%
High density lipoprotein cholesterol (mmol/L). Serum	HDL	mmol/L	0.7	1.98	0.7	1.98	1.24	1.45	****	1.9%	0.2%
Calcium (mmol/L). Serum	Calcium	mmol/L	2.15	2.48	2.15	2.48	2.34	2.29	****	5.1%	4.5%
High-sensitive CRP. Serum	hs-CRP	-	-5.11	8.15	-5.11	8.15	1.49	1.55	ns	3.6%	0%
Apolipoprotein A1 (g/L). Serum	APO A	g/L	0.88	1.71	0.88	1.71	1.22	1.37	****	3.8%	0.7%
Apolipoprotein B (g/L). Serum	APO B	g/L	0.3	0.97	0.3	0.97	0.61	0.66	****	3.8%	0.2%
Serum estradiol, E2 (nmol/L)	Estradiol	nmol/L	-0.54	0.93	-0.54	0.93	0.11	0.29	****	0%	0%
Serum progesterone (nmol/L)	Progesterone	nmol/L	-9.19	15.18	-9.19	15.18	1.81	4.32	****	0%	0%
Serum testosterone (nmol/L)	Testosterone	nmol/L	-7.41	24.23	-7.41	24.23	15.12	0.9	****	3.4%	0%
Serum dehydroepiandrosteredione sulphate (μmol/L)	DHEA	umol/L	1.29	11.83	1.29	11.83	7.24	5.8	****	6.5%	0%
Serum sex hormone binding globuline (SHBG) (nmol/L)	SHBG	nmol/L	0	200	0	200	28.69	66.61	****	0%	0%
Serum luteinizing hormone (LH) (IU/L)	LH	IU/L	-4.88	15.17	-4.88	15.17	4.22	6.18	****	0.2%	0%
Serum follicle-stimulating hormone (FSH) (IU/L)	Follicle-stimulating hormone	IU/L	-1.03	8.7	-1.03	8.7	3.62	4.07	**	2.2%	0%
Glucose (mmol/L). Non-fasting serum	Glucose non fasting	mmol/L	4	8	4	8	5.16	4.95	***	4.6%	5.7%
Glycated haemoglobin (%). EDTA whole blood	HbA1C	%	4.65	5.93	4.65	5.93	5.29	5.29	ns	1.9%	1.5%
Haemoglobin (g/dL). EDTA whole blood	HbA	g/dL	10.98	16.36	10.98	16.36	14.59	12.65	****	1.9%	3.9%
Albumin (g/L). Serum	Albumin	g/L	40.62	50.83	40.62	50.83	46.85	44.51	****	4.2%	6.4%
25(OH)D (nmol/L). Serum	25(OH)D	nmol/L	0.42	92.88	0.42	92.88	40.13	53.89	****	2.2%	0%
Retinol (μmol/L). Serum	Retinol	umol/L	0.62	4.32	0.62	4.32	2.46	2.49	ns	3.2%	0.5%
Plasma Parathyroid hormone (pmol/L)	PTH	pmol/L	1.25	7.19	1.25	7.19	4.43	3.99	****	5.1%	0%
FA C12:0 (mcg/ml). Serum	FA C12:0	mcg/ml	-21.76	32.95	-21.76	32.95	5.71	5.47	ns	1.6%	0%
FA C14:0 (mcg/ml). Serum	FA C14:0	mcg/ml	-10.61	72.5	-10.61	72.5	30.9	30.99	ns	4.1%	0%
FA C15:0 (mcg/ml). Serum	FA C15:0	mcg/ml	1.07	9.86	1.07	9.86	5.45	5.48	ns	3.2%	0%
FA C16:0 (mcg/ml). Serum	FA C16:0	mcg/ml	191.56	960.72	191.56	960.72	564.26	589.33	*	4.9%	0.7%
FA C16:1 n-7 (mcg/ml). Serum	FA C16:1 n-7	mcg/ml	-7.29	106.81	-7.29	106.81	46.61	53.26	***	3%	0%
FA C18:0 (mcg/ml). Serum	FA C18:0	mcg/ml	76.01	322.85	76.01	322.85	195.89	203.35	ns	4.3%	1.6%
FA C18:1 t6-11 (mcg/ml). Serum	FA C18:1 t6-11	mcg/ml	-6.12	47.68	-6.12	47.68	20.95	20.59	ns	4.5%	0%
FA C18:1 c-9 (mcg/ml). Serum	FA C18:1 c-9	mcg/ml	132.36	926.21	132.36	926.21	537.94	519.67	ns	5.1%	0.2%
FA C18:1 c-11 (mcg/ml). Serum	FA C18:1 c-11	mcg/ml	11.53	63.91	11.53	63.91	36.78	38.76	*	4.1%	0.2%
FA C18:2 n-6 (mcg/ml). Serum	FA C18:2 n-6	mcg/ml	310.87	1022.44	310.87	1022.44	645.65	689.97	****	3.2%	1.8%
FA C20:0 (mcg/ml). Serum	FA C20:0	mcg/ml	2.39	14.16	2.39	14.16	7.56	9.07	****	2.6%	0.9%
FA C18:3 n-6 (mcg/ml). Serum	FA C18:3 n-6	mcg/ml	-1.41	17.68	-1.41	17.68	8.23	8.04	ns	4.1%	0%
FA C18:3 n-3 (mcg/ml). Serum	FA C18:3 n-3	mcg/ml	-3.45	38.63	-3.45	38.63	17.98	17.16	ns	4.7%	0%
FA C20:1 n-9 (mcg/ml). Serum	FA C20:1 n-9	mcg/ml	0.03	7.2	0.03	7.2	3.63	3.6	ns	4.1%	0%
FA C20:2 n-6 (mcg/ml). Serum	FA C20:2 n-6	mcg/ml	1.06	8.46	1.06	8.46	4.51	5.03	****	2.2%	0.2%
FA C22:0 (mcg/ml). Serum	FA C22:0	mcg/ml	7.73	26.89	7.73	26.89	16.29	18.44	****	2%	2.5%
FA C20:3 n-6 (mcg/ml). Serum	FA C20:3 n-6	mcg/ml	9.08	65.8	9.08	65.8	36.59	38.38	ns	2.4%	0.5%
FA C20:4 n-6 (mcg/ml). Serum	FA C20:4 n-6	mcg/ml	53.09	199.38	53.09	199.38	122.54	130.34	***	3.7%	1.6%
FA C23:0 (mcg/ml). Serum	FA C23:0	mcg/ml	2.97	11.23	2.97	11.23	6.6	7.65	****	1.8%	1.4%
FA C20:5 n-3 (mcg/ml). Serum	FA C20:5 n-3	mcg/ml	-8.06	46.77	-8.06	46.77	18.51	20.3	*	3.9%	0%
FA C24:0 (mcg/ml). Serum	FA C24:0	mcg/ml	6.8	24.82	6.8	24.82	15.25	16.43	****	2.2%	2.3%
FA C24:1 (mcg/ml). Serum	FA C24:1	mcg/ml	13.93	44.18	13.93	44.18	27.34	30.95	****	2.4%	2%
FA C22:5 n-3 (mcg/ml). Serum	FA C22:5 n-3	mcg/ml	4.25	21.44	4.25	21.44	13.26	12.39	**	4.9%	1.4%
FA C22:6 n-3 (mcg/ml). Serum	FA C22:6 n-3	mcg/ml	11.93	94.5	11.93	94.5	49.07	57.82	****	3%	0.2%
FA C12:0 (weight% of Fatty Acid Methyl Esters). Serum	wFA C12:0	w%	-0.5	0.89	-0.5	0.89	0.2	0.19	ns	1.6%	0%
FA C14:0 (weight% of Fatty Acid Methyl Esters). Serum	wFA C14:0	w%	0.12	2.13	0.12	2.13	1.15	1.1	ns	5.3%	0%
FA C15:0 (weight% of Fatty Acid Methyl Esters). Serum	wFA C15:0	w%	0.12	0.3	0.12	0.3	0.21	0.2	**	6.1%	0.2%
FA C16:0 (weight% of Fatty Acid Methyl Esters). Serum	wFA C16:0	w%	18.57	25.28	18.57	25.28	21.88	21.97	ns	4.7%	0.9%
FA C16:1 n-7 (weight% of Fatty Acid Methyl Esters). Serum	wFA C16:1 n-7	w%	0.59	3.1	0.59	3.1	1.77	1.93	****	3.2%	0%
FA C18:0 (weight% of Fatty Acid Methyl Esters). Serum	wFA C18:0	w%	5.93	9.37	5.93	9.37	7.66	7.64	ns	3.7%	2%
FA C18:1 t6-11 (weight% of Fatty Acid Methyl Esters). Serum	wFA C18:1 t6-11	w%	0.03	1.5	0.03	1.5	0.79	0.74	*	6.9%	0%
FA C18:1 c-9 (weight% of Fatty Acid Methyl Esters). Serum	wFA C18:1 c-9	w%	14.3	25.8	14.3	25.8	20.68	19.34	****	5.5%	1.6%
FA C18:1 c-11 (weight% of Fatty Acid Methyl Esters). Serum	wFA C18:1 c-11	w%	0.96	1.93	0.96	1.93	1.44	1.46	ns	3.2%	0.9%
FA C18:2 n-6 (weight% of Fatty Acid Methyl Esters). Serum	wFA C18:2 n-6	w%	19.15	32.66	19.15	32.66	25.58	26.26	**	5.5%	2%
FA C20:0 (weight% of Fatty Acid Methyl Esters). Serum	wFA C20:0	w%	0.17	0.47	0.17	0.47	0.3	0.34	****	2.6%	0%
FA C18:3 n-6 (weight% of Fatty Acid Methyl Esters). Serum	wFA C18:3 n-6	w%	0.03	0.58	0.03	0.58	0.32	0.3	*	5.1%	0.5%
FA C18:3 n-3 (weight% of Fatty Acid Methyl Esters). Serum	wFA C18:3 n-3	w%	0.14	1.17	0.14	1.17	0.68	0.63	**	5.9%	0%
FA C20:1 n-9 (weight% of Fatty Acid Methyl Esters) Serum	wFA C20:1 n-9	w%	0.04	0.23	0.04	0.23	0.14	0.13	*	3%	0%
FA C20:2 n-6 (weight% of Fatty Acid Methyl Esters) Serum	wFA C20:2 n-6	w%	0.11	0.26	0.11	0.26	0.18	0.19	****	2%	0%
FA C22:0 (weight% of Fatty Acid Methyl Esters) Serum	wFA C22:0	w%	0.41	0.94	0.41	0.94	0.65	0.7	****	5.5%	0.2%
FA C20:3 n-6 (weight% of Fatty Acid Methyl Esters) Serum	wFA C20:3 n-6	w%	0.81	2.06	0.81	2.06	1.44	1.43	ns	5.5%	2%
FA C20:4 n-6 (weight% of Fatty Acid Methyl Esters) Serum	wFA C20:4 n-6	w%	2.93	6.95	2.93	6.95	4.9	4.98	ns	4.7%	0.2%
FA C23:0 (weight% of Fatty Acid Methyl Esters) Serum	wFA C23:0	w%	0.16	0.39	0.16	0.39	0.26	0.29	****	3.4%	0.5%
FA C20:5 n-3 (weight% of Fatty Acid Methyl Esters) Serum	wFA C20:5 n-3	w%	-0.32	1.84	-0.32	1.84	0.74	0.78	ns	3.7%	0%
FA C24:0 (weight% of Fatty Acid Methyl Esters) Serum	wFA C24:0	w%	0.35	0.88	0.35	0.88	0.61	0.63	ns	3.7%	0.5%
FA C24:1 (weight% of Fatty Acid Methyl Esters) Serum	wFA C24:1	w%	0.64	1.65	0.64	1.65	1.11	1.19	****	4.7%	0.5%
FA C22:5 n-3 (weight% of Fatty Acid Methyl Esters) Serum	wFA C22:5 n-3	w%	0.26	0.74	0.26	0.74	0.52	0.47	****	4.3%	2.7%
FA C22:6 n-3 (weight% of Fatty Acid Methyl Esters) Serum	wFA C22:6 n-3	w%	0.68	3.49	0.68	3.49	1.97	2.21	****	3%	0%

Table 1: Summary of all blood variables

## Blood serum and biomarkers summary

Acronym	Protein	UniProt	LOD_Batch_20160383	LOD_Batch_20160977	Uniprot_Web	Wiki_Web
ADA	Adenosine Deaminase	P00813	0.436494	1.584419	<a href="http://www.uniprot.org/uniprot/P00813">http://www.uniprot.org/uniprot/P00813</a>	<a href="https://en.wikipedia.org/wiki/Adenosine_deaminase">https://en.wikipedia.org/wiki/Adenosine_deaminase</a>
ARTN	Artemin	Q5T4W7	0.031349	0.031349	<a href="http://www.uniprot.org/uniprot/Q5T4W7">http://www.uniprot.org/uniprot/Q5T4W7</a>	<a href="https://en.wikipedia.org/wiki/Artemin">https://en.wikipedia.org/wiki/Artemin</a>
AXIN1	Axin-1	O15169	0.845030	0.576816	<a href="http://www.uniprot.org/uniprot/O15169">http://www.uniprot.org/uniprot/O15169</a>	<a href="https://en.wikipedia.org/wiki/AXIN1">https://en.wikipedia.org/wiki/AXIN1</a>
BDNF	Brain-derived neurotrophic factor	P23560	-0.380273	-0.045445	<a href="http://www.uniprot.org/uniprot/P23560">http://www.uniprot.org/uniprot/P23560</a>	<a href="https://en.wikipedia.org/wiki/Brain-derived_neurotrophic_factor">https://en.wikipedia.org/wiki/Brain-derived_neurotrophic_factor</a>
BNGF	Beta-nerve growth factor	P01138	0.755167	0.631771	<a href="http://www.uniprot.org/uniprot/P01138">http://www.uniprot.org/uniprot/P01138</a>	
CASP8	Caspase-8	Q14790	0.507711	0.151261	<a href="http://www.uniprot.org/uniprot/Q14790">http://www.uniprot.org/uniprot/Q14790</a>	<a href="https://en.wikipedia.org/wiki/Caspase_8">https://en.wikipedia.org/wiki/Caspase_8</a>
CCL11	Eotaxin	P51671	1.427776	0.950032	<a href="http://www.uniprot.org/uniprot/P51671">http://www.uniprot.org/uniprot/P51671</a>	<a href="https://en.wikipedia.org/wiki/CCL11">https://en.wikipedia.org/wiki/CCL11</a>
CCL19	C-C motif chemokine 19	Q99731	0.988040	-0.038600	<a href="http://www.uniprot.org/uniprot/Q99731">http://www.uniprot.org/uniprot/Q99731</a>	<a href="https://en.wikipedia.org/wiki/CCL19">https://en.wikipedia.org/wiki/CCL19</a>
CCL20	C-C motif chemokine 20	P78556	1.276281	1.290873	<a href="http://www.uniprot.org/uniprot/P78556">http://www.uniprot.org/uniprot/P78556</a>	<a href="https://en.wikipedia.org/wiki/CCL20">https://en.wikipedia.org/wiki/CCL20</a>
CCL23	C-C motif chemokine 23	P55773	0.780150	0.047888	<a href="http://www.uniprot.org/uniprot/P55773">http://www.uniprot.org/uniprot/P55773</a>	<a href="https://en.wikipedia.org/wiki/CCL23">https://en.wikipedia.org/wiki/CCL23</a>
CCL25	C-C motif chemokine 25	O15444	1.083723	0.634603	<a href="http://www.uniprot.org/uniprot/O15444">http://www.uniprot.org/uniprot/O15444</a>	<a href="https://en.wikipedia.org/wiki/CCL25">https://en.wikipedia.org/wiki/CCL25</a>
CCL28	C-C motif chemokine 28	Q9NRJ3	0.069990	-0.046866	<a href="http://www.uniprot.org/uniprot/Q9NRJ3">http://www.uniprot.org/uniprot/Q9NRJ3</a>	<a href="https://en.wikipedia.org/wiki/CCL28">https://en.wikipedia.org/wiki/CCL28</a>
CCL3	C-C motif chemokine 3	P10147	-0.077074	-0.524618	<a href="http://www.uniprot.org/uniprot/P10147">http://www.uniprot.org/uniprot/P10147</a>	<a href="https://en.wikipedia.org/wiki/CCL3">https://en.wikipedia.org/wiki/CCL3</a>
CCL4	C-C motif chemokine 4	P13236	0.392063	-0.121811	<a href="http://www.uniprot.org/uniprot/P13236">http://www.uniprot.org/uniprot/P13236</a>	<a href="https://en.wikipedia.org/wiki/CCL4">https://en.wikipedia.org/wiki/CCL4</a>
CD244	Natural killer cell receptor 2B4	Q9BZW8	1.658169	1.062742	<a href="http://www.uniprot.org/uniprot/Q9BZW8">http://www.uniprot.org/uniprot/Q9BZW8</a>	<a href="https://en.wikipedia.org/wiki/CD244">https://en.wikipedia.org/wiki/CD244</a>
CD40	CD40L receptor	P25942	0.757131	-0.447591	<a href="http://www.uniprot.org/uniprot/P25942">http://www.uniprot.org/uniprot/P25942</a>	<a href="https://en.wikipedia.org/wiki/CD40_(protein)">https://en.wikipedia.org/wiki/CD40_(protein)</a>
CD5	T-cell surface glycoprotein CD5	P06127	-0.487334	-0.578852	<a href="http://www.uniprot.org/uniprot/P06127">http://www.uniprot.org/uniprot/P06127</a>	<a href="https://en.wikipedia.org/wiki/CD5_(protein)">https://en.wikipedia.org/wiki/CD5_(protein)</a>
CD6	T cell surface glycoprotein CD6 isoform	Q8WUJ7	-0.194972	-0.146330	<a href="http://www.uniprot.org/uniprot/Q8WUJ7">http://www.uniprot.org/uniprot/Q8WUJ7</a>	<a href="https://en.wikipedia.org/wiki/CD6">https://en.wikipedia.org/wiki/CD6</a>
CDP1	CUB domain-containing protein 1	Q9H5V8	0.367527	0.038621	<a href="http://www.uniprot.org/uniprot/Q9H5V8">http://www.uniprot.org/uniprot/Q9H5V8</a>	<a href="https://en.wikipedia.org/wiki/CDP1">https://en.wikipedia.org/wiki/CDP1</a>
CSF1	Macrophage colony-stimulating factor 1	P09603	-0.003590	0.396328	<a href="http://www.uniprot.org/uniprot/P09603">http://www.uniprot.org/uniprot/P09603</a>	<a href="https://en.wikipedia.org/wiki/Macrophage_colony-stimulating_factor">https://en.wikipedia.org/wiki/Macrophage_colony-stimulating_factor</a>
CST5	Cystatin D	P28325	0.046105	5.800807	<a href="http://www.uniprot.org/uniprot/P28325">http://www.uniprot.org/uniprot/P28325</a>	<a href="https://en.wikipedia.org/wiki/CST5">https://en.wikipedia.org/wiki/CST5</a>
CXCL1	Fractalkine	P78423	1.875148	1.166002	<a href="http://www.uniprot.org/uniprot/P78423">http://www.uniprot.org/uniprot/P78423</a>	<a href="https://en.wikipedia.org/wiki/CXCL1">https://en.wikipedia.org/wiki/CXCL1</a>
CXCL1	C-X-C motif chemokine 1	P09341	1.387787	0.758507	<a href="http://www.uniprot.org/uniprot/P09341">http://www.uniprot.org/uniprot/P09341</a>	<a href="https://en.wikipedia.org/wiki/CXCL10">https://en.wikipedia.org/wiki/CXCL10</a>
CXCL10	C-X-C motif chemokine 10	P02778	1.534295	1.358654	<a href="http://www.uniprot.org/uniprot/P02778">http://www.uniprot.org/uniprot/P02778</a>	<a href="https://en.wikipedia.org/wiki/CXCL10">https://en.wikipedia.org/wiki/CXCL10</a>
CXCL11	C-X-C motif chemokine 11	O14625	1.471448	0.111323	<a href="http://www.uniprot.org/uniprot/O14625">http://www.uniprot.org/uniprot/O14625</a>	<a href="https://en.wikipedia.org/wiki/CXCL11">https://en.wikipedia.org/wiki/CXCL11</a>
CXCL5	C-X-C motif chemokine 5	P42830	1.184377	1.639521	<a href="http://www.uniprot.org/uniprot/P42830">http://www.uniprot.org/uniprot/P42830</a>	<a href="https://en.wikipedia.org/wiki/CXCL5">https://en.wikipedia.org/wiki/CXCL5</a>
CXCL6	C-X-C motif chemokine 6	P80162	0.843005	0.398682	<a href="http://www.uniprot.org/uniprot/P80162">http://www.uniprot.org/uniprot/P80162</a>	<a href="https://en.wikipedia.org/wiki/CXCL6">https://en.wikipedia.org/wiki/CXCL6</a>
CXCL9	C-X-C motif chemokine 9	Q07325	1.559012	1.430370	<a href="http://www.uniprot.org/uniprot/Q07325">http://www.uniprot.org/uniprot/Q07325</a>	<a href="https://en.wikipedia.org/wiki/CXCL9">https://en.wikipedia.org/wiki/CXCL9</a>
DNER	Delta and Notch-like epidermal growth factor-related receptor	Q8NFT8	-0.127219	-0.730436	<a href="http://www.uniprot.org/uniprot/Q8NFT8">http://www.uniprot.org/uniprot/Q8NFT8</a>	<a href="https://en.wikipedia.org/wiki/DNER">https://en.wikipedia.org/wiki/DNER</a>
EIF4EBP1	Eukaryotic translation initiation factor 4E-binding protein 1	Q13541	0.893928	0.969980	<a href="http://www.uniprot.org/uniprot/Q13541">http://www.uniprot.org/uniprot/Q13541</a>	<a href="https://en.wikipedia.org/wiki/EIF4EBP1">https://en.wikipedia.org/wiki/EIF4EBP1</a>
ENRAGE	Protein S100-A12	P80511	0.313350	0.996331	<a href="http://www.uniprot.org/uniprot/P80511">http://www.uniprot.org/uniprot/P80511</a>	<a href="https://en.wikipedia.org/wiki/S100A12">https://en.wikipedia.org/wiki/S100A12</a>
FGF19	Fibroblast growth factor 19	O95750	0.662450	0.255022	<a href="http://www.uniprot.org/uniprot/O95750">http://www.uniprot.org/uniprot/O95750</a>	<a href="https://en.wikipedia.org/wiki/FGF19">https://en.wikipedia.org/wiki/FGF19</a>
FGF21	Fibroblast growth factor 21	Q9NSA1	0.844435	-0.310457	<a href="http://www.uniprot.org/uniprot/Q9NSA1">http://www.uniprot.org/uniprot/Q9NSA1</a>	<a href="https://en.wikipedia.org/wiki/FGF21">https://en.wikipedia.org/wiki/FGF21</a>
FGF23	Fibroblast growth factor 23	Q9GZV9	1.039348	1.108382	<a href="http://www.uniprot.org/uniprot/Q9GZV9">http://www.uniprot.org/uniprot/Q9GZV9</a>	<a href="https://en.wikipedia.org/wiki/FGF23">https://en.wikipedia.org/wiki/FGF23</a>
FGF5	Fibroblast growth factor 5	Q8NF90	1.142597	0.876939	<a href="http://www.uniprot.org/uniprot/Q8NF90">http://www.uniprot.org/uniprot/Q8NF90</a>	<a href="https://en.wikipedia.org/wiki/FGF5">https://en.wikipedia.org/wiki/FGF5</a>
FLT3L	Fms-related tyrosine kinase 3 ligand	P49771	1.866726	1.119030	<a href="http://www.uniprot.org/uniprot/P49771">http://www.uniprot.org/uniprot/P49771</a>	<a href="https://en.wikipedia.org/wiki/FLT3L">https://en.wikipedia.org/wiki/FLT3L</a>
GFNF	Glial cell line-derived neurotrophic factor	P39905	1.331378	1.648532	<a href="http://www.uniprot.org/uniprot/P39905">http://www.uniprot.org/uniprot/P39905</a>	<a href="https://en.wikipedia.org/wiki/Glial_cell_line-derived_neurotrophic_factor">https://en.wikipedia.org/wiki/Glial_cell_line-derived_neurotrophic_factor</a>
HGF	Hepatocyte growth factor	P14210	1.146276	0.359515	<a href="http://www.uniprot.org/uniprot/P14210">http://www.uniprot.org/uniprot/P14210</a>	<a href="https://en.wikipedia.org/wiki/Hepatocyte_growth_factor">https://en.wikipedia.org/wiki/Hepatocyte_growth_factor</a>
IFNG	Interferon gamma	P01579	0.992133	0.992133	<a href="http://www.uniprot.org/uniprot/P01579">http://www.uniprot.org/uniprot/P01579</a>	<a href="https://en.wikipedia.org/wiki/Interferon_gamma">https://en.wikipedia.org/wiki/Interferon_gamma</a>
IL10	Interleukin-10	P22301	1.839415	2.432488	<a href="http://www.uniprot.org/uniprot/P22301">http://www.uniprot.org/uniprot/P22301</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_10">https://en.wikipedia.org/wiki/Interleukin_10</a>
IL10RA	Interleukin-10 receptor subunit alpha	Q13651	0.996689	0.662247	<a href="http://www.uniprot.org/uniprot/Q13651">http://www.uniprot.org/uniprot/Q13651</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_10_receptor_subunit_alpha">https://en.wikipedia.org/wiki/Interleukin_10_receptor_subunit_alpha</a>
IL10RB	Interleukin-10 receptor subunit beta	Q08334	1.425411	1.405083	<a href="http://www.uniprot.org/uniprot/Q08334">http://www.uniprot.org/uniprot/Q08334</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_10_receptor_subunit_beta">https://en.wikipedia.org/wiki/Interleukin_10_receptor_subunit_beta</a>
IL12B	Interleukin-12 subunit beta	P29460	-0.338237	-0.143724	<a href="http://www.uniprot.org/uniprot/P29460">http://www.uniprot.org/uniprot/P29460</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_12_receptor_subunit_beta">https://en.wikipedia.org/wiki/Interleukin_12_receptor_subunit_beta</a>
IL13	Interleukin-13	P35225	1.537823	1.537823	<a href="http://www.uniprot.org/uniprot/P35225">http://www.uniprot.org/uniprot/P35225</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_13">https://en.wikipedia.org/wiki/Interleukin_13</a>
IL15RA	Interleukin-15 receptor subunit alpha	Q13261	0.783341	0.595480	<a href="http://www.uniprot.org/uniprot/Q13261">http://www.uniprot.org/uniprot/Q13261</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_15_receptor_subunit_alpha">https://en.wikipedia.org/wiki/Interleukin_15_receptor_subunit_alpha</a>
IL17A	Interleukin-17A	Q16552	0.532945	0.371852	<a href="http://www.uniprot.org/uniprot/Q16552">http://www.uniprot.org/uniprot/Q16552</a>	<a href="https://en.wikipedia.org/wiki/IL17A">https://en.wikipedia.org/wiki/IL17A</a>
IL17C	Interleukin-17C	Q9P0M4	1.371362	1.358013	<a href="http://www.uniprot.org/uniprot/Q9P0M4">http://www.uniprot.org/uniprot/Q9P0M4</a>	
IL18	Interleukin-18	Q14116	-0.188372	0.365590	<a href="http://www.uniprot.org/uniprot/Q14116">http://www.uniprot.org/uniprot/Q14116</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_18">https://en.wikipedia.org/wiki/Interleukin_18</a>
IL18R1	Interleukin-18 receptor 1	Q13478	0.933131	0.638867	<a href="http://www.uniprot.org/uniprot/Q13478">http://www.uniprot.org/uniprot/Q13478</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_18_receptor">https://en.wikipedia.org/wiki/Interleukin_18_receptor</a>
IL1A	Interleukin-1 alpha	P01583	0.336995	1.802489	<a href="http://www.uniprot.org/uniprot/P01583">http://www.uniprot.org/uniprot/P01583</a>	<a href="https://en.wikipedia.org/wiki/IL1A">https://en.wikipedia.org/wiki/IL1A</a>
IL2	Interleukin-2	P60568	1.223237	1.223237	<a href="http://www.uniprot.org/uniprot/P60568">http://www.uniprot.org/uniprot/P60568</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_2">https://en.wikipedia.org/wiki/Interleukin_2</a>
IL20	Interleukin-20	Q9NY11	0.728374	0.813528	<a href="http://www.uniprot.org/uniprot/Q9NY11">http://www.uniprot.org/uniprot/Q9NY11</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_20">https://en.wikipedia.org/wiki/Interleukin_20</a>
IL20RA	Interleukin-20 receptor subunit alpha	Q9UHF4	0.877718	0.881812	<a href="http://www.uniprot.org/uniprot/Q9UHF4">http://www.uniprot.org/uniprot/Q9UHF4</a>	
IL22RA1	Interleukin-22 receptor subunit alpha-1	Q8N6P7	2.260242	2.260242	<a href="http://www.uniprot.org/uniprot/Q8N6P7">http://www.uniprot.org/uniprot/Q8N6P7</a>	
IL24	Interleukin-24	Q13007	1.336190	1.336190	<a href="http://www.uniprot.org/uniprot/Q13007">http://www.uniprot.org/uniprot/Q13007</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_24">https://en.wikipedia.org/wiki/Interleukin_24</a>
IL2RB	Interleukin-2 receptor subunit beta	P14784	0.845790	0.845790	<a href="http://www.uniprot.org/uniprot/P14784">http://www.uniprot.org/uniprot/P14784</a>	<a href="https://en.wikipedia.org/wiki/IL2RB">https://en.wikipedia.org/wiki/IL2RB</a>
IL33	Interleukin-33	O95760	1.425509	1.425509	<a href="http://www.uniprot.org/uniprot/O95760">http://www.uniprot.org/uniprot/O95760</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_33">https://en.wikipedia.org/wiki/Interleukin_33</a>
IL4	Interleukin-4	P05112	1.184842	0.958605	<a href="http://www.uniprot.org/uniprot/P05112">http://www.uniprot.org/uniprot/P05112</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_4">https://en.wikipedia.org/wiki/Interleukin_4</a>
IL5	Interleukin-5	P05113	1.725314	1.647055	<a href="http://www.uniprot.org/uniprot/P05113">http://www.uniprot.org/uniprot/P05113</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_5">https://en.wikipedia.org/wiki/Interleukin_5</a>
IL6	Interleukin-6	P05231	0.824445	2.415735	<a href="http://www.uniprot.org/uniprot/P05231">http://www.uniprot.org/uniprot/P05231</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_6">https://en.wikipedia.org/wiki/Interleukin_6</a>
IL7	Interleukin-7	P13232	1.021735	1.336047	<a href="http://www.uniprot.org/uniprot/P13232">http://www.uniprot.org/uniprot/P13232</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_7">https://en.wikipedia.org/wiki/Interleukin_7</a>
IL8	Interleukin-8	P10145	1.162271	2.227435	<a href="http://www.uniprot.org/uniprot/P10145">http://www.uniprot.org/uniprot/P10145</a>	<a href="https://en.wikipedia.org/wiki/Interleukin_8">https://en.wikipedia.org/wiki/Interleukin_8</a>
LIF	Leukemia inhibitory factor	P15018	0.800844	0.800844	<a href="http://www.uniprot.org/uniprot/P15018">http://www.uniprot.org/uniprot/P15018</a>	<a href="https://en.wikipedia.org/wiki/Leukemia_inhibitory_factor">https://en.wikipedia.org/wiki/Leukemia_inhibitory_factor</a>
LIFR	Leukemia inhibitory factor receptor	P42702	1.665534	-0.265929	<a href="http://www.uniprot.org/uniprot/P42702">http://www.uniprot.org/uniprot/P42702</a>	<a href="https://en.wikipedia.org/wiki/LIFR">https://en.wikipedia.org/wiki/LIFR</a>
MCPI	Monocyte chemoattractant protein 1	P13500	0.358877	-0.161967	<a href="http://www.uniprot.org/uniprot/P13500">http://www.uniprot.org/uniprot/P13500</a>	<a href="https://en.wikipedia.org/wiki/Monocyte_chemoattractant_protein_1">https://en.wikipedia.org/wiki/Monocyte_chemoattractant_protein_1</a>
MC2	Monocyte chemoattractant protein 2	P80075	1.385177	1.823898	<a href="http://www.uniprot.org/uniprot/P80075">http://www.uniprot.org/uniprot/P80075</a>	
MC3	Monocyte chemoattractant protein 3	P80098	1.493173	1.699734	<a href="http://www.uniprot.org/uniprot/P80098">http://www.uniprot.org/uniprot/P80098</a>	
MC4	Monocyte chemoattractant protein 4	Q99616	-0.265469	-0.298464	<a href="http://www.uniprot.org/uniprot/Q99616">http://www.uniprot.org/uniprot/Q99616</a>	
MMP1	Matrix metalloproteinase-1	P03956	-0.024189	-6.622735	<a href="http://www.uniprot.org/uniprot/P03956">http://www.uniprot.org/uniprot/P03956</a>	<a href="https://en.wikipedia.org/wiki/Matrix_metalloproteinase">https://en.wikipedia.org/wiki/Matrix_metalloproteinase</a>
MMP10	Matrix metalloproteinase-10	P09238	1.379258	3.725904	<a href="http://www.uniprot.org/uniprot/P09238">http://www.uniprot.org/uniprot/P09238</a>	<a href="https://en.wikipedia.org/wiki/Matrix_metalloproteinase">https://en.wikipedia.org/wiki/Matrix_metalloproteinase</a>
NRTN	Neurturin	Q99748	1.124936	1.124936	<a href="http://www.uniprot.org/uniprot/Q99748">http://www.uniprot.org/uniprot/Q99748</a>	<a href="https://en.wikipedia.org/wiki/Neurturin">https://en.wikipedia.org/wiki/Neurturin</a>
NT3	Neurotrophin-3	P20783	0.771270	0.918843	<a href="http://www.uniprot.org/uniprot/P20783">http://www.uniprot.org/uniprot/P20783</a>	<a href="https://en.wikipedia.org/wiki/Neurotrophin-3">https://en.wikipedia.org/wiki/Neurotrophin-3</a>
OPG	Osteoprotegerin	O00300	0.918419	0.590118	<a href="http://www.uniprot.org/uniprot/O00300">http://www.uniprot.org/uniprot/O00300</a>	<a href="https://en.wikipedia.org/wiki/Osteoprotegerin">https://en.wikipedia.org/wiki/Osteoprotegerin</a>
OSM	Oncostatin-M	P13725	-0.153103	-0.025163	<a href="http://www.uniprot.org/uniprot/P13725">http://www.uniprot.org/uniprot/P13725</a>	<a href="https://en.wikipedia.org/wiki/Oncostatin_M">https://en.wikipedia.org/wiki/Oncostatin_M</a>
PDL1	Programmed cell death 1 ligand 1	Q9NZQ7	2.257393	2.925003	<a href="http://www.uniprot.org/uniprot/Q9NZQ7">http://www.uniprot.org/uniprot/Q9NZQ7</a>	<a href="https://en.wikipedia.org/wiki/PD-L1">https://en.wikipedia.org/wiki/PD-L1</a>
SCF	Stem cell factor	P21583	0.922578	0.051798	<a href="http://www.uniprot.org/uniprot/P21583">http://www.uniprot.org/uniprot/P21583</a>	<a href="https://en.wikipedia.org/wiki/Stem_cell_factor">https://en.wikipedia.org/wiki/Stem_cell_factor</a>
SIRT2	SIRT2-like protein 2	Q8IXJ6	1.402289	1.386472	<a href="http://www.uniprot.org/uniprot/Q8IXJ6">http://www.uniprot.org/uniprot/Q8IXJ6</a>	
SLAMF1	Signaling lymphocytic activation molecule	Q13291	1.849931	1.677337	<a href="http://www.uniprot.org/uniprot/Q13291">http://www.uniprot.org/uniprot/Q13291</a>	<a href="https://en.wikipedia.org/wiki/Signaling_lymphocytic_activation_molecule">https://en.wikipedia.org/wiki/Signaling_lymphocytic_activation_molecule</a>
ST1A1	Sulfotransferase 1A1	P50225	0.078597	0.568043	<a href="http://www.uniprot.org/uniprot/P50225">http://www.uniprot.org/uniprot/P50225</a>	<a href="https://en.wikipedia.org/wiki/SULT1A1">https://en.wikipedia.org/wiki/SULT1A1</a>
STAMPB	STAM-binding protein	O95630	0.667136	0.627816	<a href="http://www.uniprot.org/uniprot/O95630">http://www.uniprot.org/uniprot/O95630</a>	<a href="https://en.wikipedia.org/wiki/STAMPB">https://en.wikipedia.org/wiki/STAMPB</a>
TGFA	Transforming growth factor alpha	P01135	-1.214780	-1.869967	<a href="http://www.uniprot.org/uniprot/P01135">http://www.uniprot.org/uniprot/P01135</a>	<a href="https://en.wikipedia.org/wiki/TGF_alpha">https://en.wikipedia.org/wiki/TGF_alpha</a>
TGFB1	Latency-associated peptide transforming growth factor beta-1	P01137	1.034369	0.482168	<a href="http://www.uniprot.org/uniprot/P01137">http://www.uniprot.org/uniprot/P01137</a>	<a href="https://en.wikipedia.org/wiki/TGF_beta_1">https://en.wikipedia.org/wiki/TGF_beta_1</a>
TNF	Tumor necrosis factor	P01375	0.831819	0.837656	<a href="http://www.uniprot.org/uniprot/P01375">http://www.uniprot.org/uniprot/P01375</a>	<a href="https://en.wikipedia.org/wiki/Tumor_necrosis_factor">https://en.wikipedia.org/wiki/Tumor_necrosis_factor</a>
TNFB	TNF-beta	P01374	0.605630	0.200990	<a href="http://www.uniprot.org/uniprot/P01374">http://www.uniprot.org/uniprot/P01374</a>	<a href="https://en.wikipedia.org/wiki/Lymphotoxin_alpha">https://en.wikipedia.org/wiki/Lymphotoxin_alpha</a>
TNFRSF9	Tumor necrosis factor receptor superfamily member 9	Q07011	1.599546	1.466786	<a href="http://www.uniprot.org/uniprot/Q07011">http://www.uniprot.org/uniprot/Q07011</a>	<a href="https://en.wikipedia.org/wiki/4-1BB_ligand">https://en.wikipedia.org/wiki/4-1BB_ligand</a>
TNFSF14	Tumor necrosis factor ligand superfamily member 14	O43557	0.210933	-0.170624	<a href="http://www.uniprot.org/uniprot/O43557">http://www.uniprot.org/uniprot/O43557</a>	<a href="https://en.wikipedia.org/wiki/LIGHT_(protein)">https://en.wikipedia.org/wiki/LIGHT_(protein)</a>
TRAIL	TNF-related apoptosis-inducing ligand	P50591	0.651508	0.548601	<a href="http://www.uniprot.org/uniprot/P50591">http://www.uniprot.org/uniprot/P50591</a>	<a href="https://en.wikipedia.org/wiki/TRAIL">https://en.wikipedia.org/wiki/TRAIL</a>
TRANCE	TNF-related activation-induced cytokine	O14788	1.263670	1.118725	<a href="http://www.uniprot.org/uniprot/O14788">http://www.uniprot.org/uniprot/O14788</a>	<a href="https://en.wikipedia.org/wiki/Receptor_activator_of_nuclear_factor_kappa-B_ligand">https://en.wikipedia.org/wiki/Receptor_activator_of_nuclear_factor_kappa-B_ligand</a>
TSLP	Thymic stromal lymphopoietin	Q969D9	1.080835	1.080835	<a href="http://www.uniprot.org/uniprot/Q969D9">http://www.uniprot.org/uniprot/Q969D9</a>	<a href="https://en.wikipedia.org/wiki/Thymic_stromal_lymphopoietin">https://en.wikipedia.org/wiki/</a>



**Figure 1:** Relative Blood levels with respect healthy upper and lower bounds, for men and women; including variables that are not Fatty Acids.