Supplemental Information – Table 2. MRM parameters and analytical precision of MRM assays based on proteotypic tryptic peptides for 45 plasma proteins. Masses listed are for the natural forms of all 45 peptides. This research was originally published in *Molecular & Cellular Proteomics.* Kuzyk, M.; Smith, D.; Yang, J.; Cross, T.; Jackson, A.; Hardie, D.; Anderson, L.; Borchers, C., MRM-based, Multiplexed, Absolute Quantitation of 45 proteins in human plasma. *Molecular and Cellular Proteomics* **2009,** 8, (8), 1860-1877

Protein	Uniprot accession	Peptide sequence	Peptide mw (Da)	Q1[a]	Q3[b]	DP[c] (V)	CE[d] (V)	Fragment ion	%CV[e]	Fold signal increase[f]	Putative disease association	References
Afamin	P43652	DADPDTFFAK	1125.5	**563.8**	**825.4**	**60**	**24**	**y7**	**5.4**	11.1	ovarian cancer	Jackson *et al.* 2007
				563.8	413.2	60	23	y7++	6.1			
				563.8	940.4	60	27	y8	6.9			
Albumin, serum	P02768	LVNEVTEFAK	1148.6	575.3	185.2	70	32	a2	1.4		CVD	Anderson 2005
				575.3	**937.5**	**70**	**25**	**y8**	**1.4**	4.5		
				575.3	213.2	70	27	b2	1.1			
Alpha-1-acid glycoprotein 1	P02763	NWGLSVYADKPETTK	1707.8	**570.3**	**704.9**	**56**	**24**	**y13++**	**2.2**	14.0	CVD,	Anderson 2005,
				570.3	273.1	56	30	a2	3.6		cervical cancers	Polanski & Anderson 2006
				570.3	301.1	56	25	b2	6.0			
Alpha-1-antichymotrypsin	P01011	EIGELYLPK	1060.6	531.3	244.2	60	31	y2	4.1		CVD,	Anderson 2005,
				531.3	**819.5**	**60**	**24**	**y7**	**3.5**	28.2	Alzheimer's disease	DeKosky *et al.* 2003
				531.3	215.1	60	31	a2	2.5			
Alpha-1B-glycoprotein	P04217	LETPDFQLFK	1236.6	619.3	243.1	65	31	b2	2.0		pancreatic,	Tian *et al.* 2008,
				619.3	**894.5**	**65**	**28**	**y7**	**1.5**	2.5	liver & bladder cancers	Kreunin *et al.* 2007,
				619.3	215.1	65	35	a2	1.9			Yoon et al. 2006
Alpha-2-antiplasmin	P08697	LGNQEPGGQTALK	1311.7	**656.8**	**771.4**	**82**	**33**	**y8**	**2.6**	1.2	CVD	Anderson 2005
				656.8	542.3	82	31	b5	3.0			
				656.8	900.5	82	33	y9	6.2			
Alpha-2-macroglobulin	P01023	LLIYAVLPTGDVIGDSAK	1844.0	**615.7**	**586.8**	**58**	**17**	**y12++**	**2.2**	19.1	CVD	Anderson 2005
				615.7	673.4	58	17	b6	1.7			
				615.7	530.3	58	24	y11++	2.9			
Angiotensinogen	P01019	ALQDQLVLVAAK	1267.8	**634.9**	**542.8**	**73**	**25**	**y10++**	**5.1**	3.7	CVD	Anderson 2005
				634.9	956.6	73	29	y9	5.7			
				634.9	289.2	73	29	y3	5.1			
Antithrombin-III	P01008	DDLYVSDAFHK	1308.6	**437.2**	**540.3**	**47**	**17**	**y9++**	**4.7**	7.6	CVD	Anderson 2005
				437.2	483.7	47	18	y8++	4.8			
				437.2	704.3	47	23	y6	6.9			
Apolipoprotein A-I	P02647	ATEHLSTLSEK	1214.6	405.9	572.8	52	19	y10++	1.1		CVD	Anderson 2005
				405.9	**522.3**	**52**	**18**	**y9++**	**1.7**	8.4		
				405.9	363.2	52	24	y3	1.4			
Apolipoprotein A-II precursor	P02652	SPELQAEAK	971.5	**486.8**	**443.2**	**64**	**26**	**y8++**	**5.7**	1.6	CVD,	Anderson 2005,
				486.8	157.1	64	34	a2	N.D.		prostate cancer	Malik 2005
				486.8	788.4	64	25	y7	0.9			
Apolipoprotein A-IV	P06727	SLAPYAQDTQEK	1349.7	**675.8**	**540.3**	**67**	**30**	**y9++**	**2.7**	6.6	CVD	Anderson 2005
				675.8	575.8	67	30	y10++	5.7			
				675.8	1079.5	67	30	y9	4.5			
Apolipoprotein B-100	P04114	FPEVDVLTK	1046.6	**524.3**	**450.8**	**65**	**28**	**y8++**	**2.9**	5.4	coronary heart disease	Talmud *et al.* 2002
				524.3	803.5	65	26	y7	4.4			
				524.3	674.4	65	32	y6	8.9			
Apolipoprotein C-I lipoprotein	P02654	TPDVSSALDK	1031.5	**516.8**	**466.2**	**78**	**29**	**y9++**	**2.5**	8.9	CVD	Anderson 2005
				516.8	834.4	78	29	y8	3.0			
				516.8	620.3	78	29	y6	2.3			
Apolipoprotein C-III	P02656	GWVTDGFSSLK	1195.6	598.8	244.1	59	31	b2	1.1		CVD	Anderson 2005
				598.8	**854.4**	**59**	**26**	**y8**	**1.9**	4.5		
				598.8	953.5	59	25	y9	2.5			

Apolipoprotein E	P02649	LGPLVEQGR	967.6	**484.8**	**399.7**	**70**	**25**	**y7++**	**3.6**	11.0	CVD	Anderson 2005
				484.8	588.3	70	30	y5	3.8			
				484.8	489.2	70	28	y4	4.3			
Beta-2-glycoprotein I	P02749	ATVVYQGER	1021.5	511.8	652.3	65	25	y5	1.6		CVD	Anderson 2005
				511.8	**751.4**	**65**	**25**	**y6**	**1.6**	3.2		
				511.8	850.4	65	25	y7	1.9			
Ceruloplasmin	P00450	EYTDASFTNR	1202.5	**602.3**	**624.3**	**66**	**29**	**y5**	**6.0**	1.4	CVD	Anderson 2005
				602.3	911.4	66	29	y4	6.0			
				602.3	695.4	66	32	y6	5.2			
Clusterin	P10909	ELDESLQVAER	1287.6	644.8	375.2	75	30	y3	5.7		CVD	Anderson 2005
				644.8	802.4	75	33	y7	6.7			
				644.8	**602.3**	**75**	**31**	**y5**	**5.1**	2.2		
Coagulation factor XIIa HC	P00748	VVGGLVALR	882.6	**442.3**	**685.4**	**60**	**21**	**y7**	**2.6**	15.4	CVD	Anderson 2005
				442.3	171.1	60	25	a2	4.9			
				442.3	199.1	60	21	b2	3.9			
Complement C3	P01024	TGLQEVEVK	1001.5	**501.8**	**731.4**	**65**	**25**	**y6**	**3.0**	1.8	CVD	Anderson 2005
				501.8	603.3	65	26	y5	1.7			
				501.8	422.7	65	25	y7++	6.4			
Complement C4 beta chain	P0C0L5	VGDTLNLNLR	1113.6	**557.8**	**629.4**	**70**	**31**	**y5**	**6.9**	1.1	CVD,	Anderson 2005,
				557.8	742.5	70	30	y6	5.4		renal carcinoma	Polanski & Anderson 2006
				557.8	1015.5	70	32	y9	7.2			
Complement C4 gamma chain	P0C0L5	ITQVLHFTK	1085.6	**362.9**	**487.3**	**88**	**16**	**y8++**	**3.7**	5.3	CVD,	Anderson 2005,
				362.9	436.8	88	15	y7++	6.3		renal carcinoma	Polanski & Anderson 2006
				362.9	215.1	88	18	b2	10.1			
Complement component C9	P02748	TEHYEEQIEAFK	1522.7	**508.6**	**494.3**	**66**	**23**	**y4**	**11.3**	3.6		
				508.6	607.3	66	21	y5	11.8			
				508.6	917.4	66	19	b7	15.6			
Complement factor B	P00751	EELLPAQDIK	1154.6	**578.3**	**671.4**	**65**	**25**	**y6**	**2.3**	18.5		
				578.3	372.2	65	29	b3	3.8			
				578.3	259.1	65	39	b2	5.5			
Complement factor H	P08603	SPDVINGSPISQK	1340.7	**671.4**	**830.4**	**77**	**35**	**y8**	**7.5**	2.4	Acute macular	Klein, *et al.* 2005
				671.4	943.5	77	35	y9	6.8		degeneration	
				671.4	399.2	77	37	b4	7.1			
Fibrinogen alpha chain	P02671	GSESGIFTNTK	1139.6	**570.8**	**610.3**	**61**	**26**	**y5**	**2.2**	1.5	CVD, oral cancer	Anderson 2005,
				570.8	867.5	61	28	y8	3.3			Cheng *et al.* 2005
				570.8	780.4	61	25	y7	3.0			
Fibrinogen beta chain	P02675	QGFGNVATNTDGK	1307.6	**654.8**	**706.3**	**85**	**34**	**y7**	**2.4**	1.3	CVD,	Anderson 2005,
				654.8	635.3	85	34	y6	2.1		gastrointestinal	Kang *et al.* 2006
				654.8	805.4	85	34	y8	2.7		stromal tumor	
Fibrinogen gamma chain	P02679	DTVQIHDITGK	1225.6	**409.6**	**505.8**	**49**	**17**	**y9++**	**2.9**	8.1	CVD,	Anderson 2005,
				409.6	189.1	49	22	a2	6.2		Alzheimer's disease	Lee *et al.* 2007
				409.6	217.1	49	19	b2	8.4			
Gelsolin, isoform 1	P06396	TGAQELLR	886.5	444.3	159.1	70	28	b2	4.9		progression to	Winston *et al.* 2001
				444.3	**530.3**	**70**	**25**	**y4**	**5.4**	1.2	breast carcinoma	
				444.3	658.4	70	25	y5	6.3			
Haptoglobin beta chain	P00738	VGYVSGWGR	979.5	**490.8**	**562.3**	**61**	**25**	**y5**	**1.7**	2.6	CVD	Anderson 2005
				490.8	320.2	61	25	b3	1.7			
				490.8	661.3	61	25	y6	1.9			

Hemopexin	P02790	NFPSPVDAAFR	1219.6	**610.8**	**480.3**	**59**	**25**	**y9++**	**0.8**	3.1	CVD	Anderson 2005
				610.8	234.1	59	33	a2	1.1			
				610.8	959.5	59	26	y9	1.3			
Heparin cofactor II	P05546	TLEAQLTPR	1027.6	**514.8**	**814.4**	**65**	**25**	**y7**	**6.0**	7.8	CVD	Anderson 2005
				514.8	685.4	65	27	y6	5.8			
				514.8	373.2	65	25	y3	6.9			
Inter-alpha-trypsin inhibitor HC	P19827	AAISGENAGLVR	1156.6	**579.3**	**902.5**	**66**	**28**	**y9**	**3.5**	10.3		
				579.3	815.4	66	30	y8	4.2			
				579.3	508.3	66	26	y10++	3.1			
Kininogen-1	P01042	TVGSDTFYSFK	1250.6	626.3	173.1	62	40	a2	2.7		colorectal cancer	Qiu *et al.* 2008
				626.3	**1051.5**	**62**	**26**	**y9**	**2.8**	33.0		
				626.3	201.1	62	29	b2	2.6			
L-selectin	P14151	AEIEYLEK	993.5	**497.8**	**794.4**	**64**	**21**	**y6**	**12.4**	6.0	CVD	Anderson 2005
				497.8	201.1	64	23	b2	10.1			
				497.8	173.1	64	29	a2	19.6			
Plasma retinol-binding protein	P02753	YWGVASFLQK	1197.6	599.8	849.5	76	28	y8	5.8		lung cancer	Patz *et al.* 2007
				599.8	350.2	76	27	b2	3.7			
				599.8	**693.4**	**76**	**29**	**y6**	**3.7**	5.5		
Plasminogen	P00747	LFLEPTR	874.5	**438.3**	**615.3**	**52**	**21**	**y5**	**2.6**	5.5	CVD	Anderson 2005
				438.3	233.2	52	25	a2	3.9			
				438.3	261.2	52	22	b2	3.4			
Prothrombin	P00734	ETAASLLQAGYK	1250.7	626.3	679.4	70	29	y6	5.5		CVD	Anderson 2005
				626.3	**879.5**	**70**	**29**	**y8**	**7.1**	3.9		
				626.3	792.5	70	29	y7	4.3			
Serum amyloid P-component	P02743	VGEYSLYIGR	1155.6	**578.8**	**708.4**	**80**	**27**	**y6**	**6.6**	3.2	renal cancer	Polanski & Anderson 2006
				578.8	508.3	80	29	y4	7.2			
				578.8	871.5	80	27	y7	8.5			
Transferrin	P02787	EDPQTFYYAVAVVK	1628.8	**815.4**	**693.4**	**75**	**34**	**y12++**	**1.0**	68.7	CVD,	Kozak *et al.* 2005
				815.4	912.5	75	33	y8	1.3		early ovarian cancer	
				815.4	1059.6	75	38	y9	2.3			
Transthyretin	P02766	AADDTWEPFASGK	1393.6	**697.8**	**606.3**	**70**	**38**	**y6**	**1.9**	92.9	ovarian cancer	Polanski & Anderson 2006
				697.8	921.5	70	32	y8	2.7			
				697.8	735.4	70	31	y7	4.0			
Vitamin D-binding protein	P02774	THLPEVFLSK	1169.6	**390.9**	**494.3**	**44**	**17**	**y4**	**3.5**	12.7	prostate cancer	Hlavaty *et al.* 2003
				390.9	578.3	44	17	b5	3.6			
				390.9	352.2	44	25	b3	4.8			
Vitronectin	P04004	FEDGVLDPDYPR	1421.7	711.8	875.4	75	31	y7	3.2		CVD	Anderson 2005
				711.8	**647.3**	**75**	**42**	**y5**	**3.6**	5.8		
				711.8	762.3	75	32	y6	4.2			
Zinc-alpha-2-glycoprotein	P25311	EIPAWVPFDPAAQITK	1781.9	892.0	1087.6	55	40	y10	3.5		prostate cancer	Hale *et al.* 2001
				892.0	**770.9**	**55**	**35**	**y14++**	**3.7**	48.1		
				892.0	696.4	55	34	b6	4.4			

[a]Q1, endogenous peptide precursor *m/z* ; [b]Q3, fragment ion *m/z* ; [c]DP, declustering potential; [d]CE, collision energy; [e]Determined as one standard deviation proportional to the mean; [f]Intensity of optimized MRM Q1/Q3 pairs versus intensity of *in silico* predicted MRM Q1/Q3 ion pairs using the first y fragment ion > precursor ion *m/z* with a CE V calculated using CE = *m/z* × 0.05 + 5.