

Description of column headings for ST2 and ST3: A, neXtProt accession code; B, Ensembl Gene number; C, protein name; D, gene name; E, chromosomal location of the gene; then evidence curated by SwissProt/neXtProt: F, Edman degradation sequencing; G, use of textbook knowledge; H, disease mutation; I, 3D structure studies; J, SwissProt protein-protein interactions; K, IntAct protein-protein interactions (Gold); L, post-translational modifications; M, antibody studies; N, functional experiments; O, mutagenesis study; then from Human Protein Atlas (HPA v19): P, Tissue Atlas reliability score (enhanced/supported/approved/uncertain validation categories); Q, consensus RNA expression specificity (from HPA, GTEx, FANTOM5); R, consensus distribution; S, tissue enriched/tissue enhanced. The red highlighted rows are the difference between 950 total neXtProt entries and the 820 for which there is knowledge about which kinds of evidence were reviewed; presumably the other 130 are older results carried forward from UniProt/SwissProt.

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N		
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated	PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
42	NX_A8MW95	Beclin-2	BECN2	1q43				yes	yes	yes		yes	yes	yes	yes	
43	NX_P35462	D(3) dopamine receptor	DRD3	3q13.31				yes	yes	yes	yes		yes	yes	yes	yes
44	NX_Q9UBX2	Double homeobox protein 4	DUX4	4q35.2				yes	yes	yes		yes	yes	yes	yes	yes
45	NX_P43220	Glucagon-like peptide 1 receptor	GLP1R	6p21.2				yes	yes	yes	yes	yes	yes	yes	yes	yes
46	NX_P0C0S8	Histone H2A type 1	H2AC11, H2AC11	6p22.1				yes	yes	yes	yes	yes	yes	yes	yes	yes
47	NX_Q9Y2N7	Hypoxia-inducible factor 3-alpha	HIF3A	19q13.32				yes	yes	yes		yes	yes	yes	yes	yes
48	NX_P04908	Histone H2A type 1-B/E	HIST1H2AB, HIST1H2AB	6p22.2				yes	yes	yes	yes	yes	yes	yes	yes	yes
49	NX_P28335	5-hydroxytryptamine receptor	HTR2C	Xq23				yes	yes	yes	yes	yes	yes	yes	yes	yes
50	NX_Q5VWK5	Interleukin-23 receptor	IL23R	1p31.3				yes	yes	yes	yes	yes	yes	yes	yes	yes
51	NX_Q9GZQ8	Microtubule-associated protein 1A	MAP1LC3B	16q24.2				yes	yes	yes	yes	yes	yes	yes	yes	yes
52	NX_Q9H9S0	Homeobox protein NANOG	NANOG	12p13.31				yes	yes	yes		yes	yes	yes	yes	yes
53	NX_Q7Z3Z2	Protein RD3	RD3	1q32.3				yes	yes	yes		yes	yes	yes	yes	yes
54	NX_O15105	Mothers against decapentaplegic 7	SMAD7	18q21.1				yes	yes	yes	yes	yes	yes	yes	yes	yes
55	NX_G2XKQ0	Small ubiquitin-related modifier 1	SUMO1P1	20q13.2				yes	yes	yes	yes	yes	yes	yes	yes	yes
56	NX_Q9BZJ8	G-protein coupled receptor 61	GPR61	1p13.3					yes	yes	yes	yes	yes	yes	yes	yes
57	NX_Q9H3Y6	Tyrosine-protein kinase Src	SRMS	20q13.33					yes	yes	yes	yes	yes	yes	yes	yes
58	NX_P51671	Eotaxin	CCL11	17q12	yes			yes		yes	yes	yes	yes	yes	yes	yes
59	NX_Q99616	C-C motif chemokine 13	CCL13	17q12	yes			yes		yes	yes	yes	yes	yes	yes	yes
60	NX_Q9Y258	C-C motif chemokine 26	CCL26	7q11.23	yes			yes	yes	yes		yes	yes	yes	yes	yes
61	NX_O60814	Histone H2B type 1-K	HIST1H2BK	6p22.1	yes			yes	yes		yes	yes	yes	yes	yes	yes
62	NX_Q16778	Histone H2B type 2-E	HIST2H2BE	1q21.2	yes			yes	yes		yes	yes	yes	yes	yes	yes
63	NX_Q13007	Interleukin-24	IL24	1q32.1	yes			yes		yes	yes	yes	yes	yes	yes	yes
64	NX_P05112	Interleukin-4	IL4	5q31.1	yes			yes		yes	yes	yes	yes	yes	yes	yes
65	NX_P04553	Sperm protamine P1	PRM1	16p13.13	yes			yes	yes	yes	yes	yes	yes	yes	yes	yes
66	NX_P10265	Endogenous retrovirus group 1	ERVK-10	5q33.3	yes				yes	yes	yes	yes	yes	yes	yes	yes
67	NX_Q9NWW9	Phospholipase A and acyltransferase 2	PLAAT2	11q12.3		yes		yes					yes	yes	yes	yes
68	NX_Q5QJU3	Alkaline ceramidase 2	ACER2	9p22.1		yes						yes	yes	yes	yes	yes
69	NX_P47872	Secretin receptor	SCTR	2q14.2		yes				yes		yes	yes	yes	yes	yes
70	NX_Q04844	Acetylcholine receptor subunit epsilon	CHRNE	17p13.2			yes	yes	yes				yes	yes	yes	yes
71	NX_Q43612	Orexin	HCRT	17q21.2			yes	yes			yes		yes	yes	yes	yes
72	NX_Q9NPC2	Potassium channel subfamily A member 9	KCNK9	8q24.3			yes	yes	yes				yes	yes	yes	yes
73	NX_P56696	Potassium voltage-gated channel subfamily D member 4	KCNQ4	1p34.2			yes	yes	yes				yes	yes	yes	yes
74	NX_P22888	Lutropin-choriogonadotropin receptor	LHCGR	2p16.3			yes	yes			yes		yes	yes	yes	yes
75	NX_P04000	Long-wave-sensitive opsin 1	OPN1LW	Xq28			yes	yes			yes		yes	yes	yes	yes
76	NX_Q9UMZ3	Phosphatidylinositol 3-kinase	PTPRQ	12q21.31			yes	yes				yes	yes	yes	yes	yes
77	NX_Q01726	Melanocyte-stimulating hormone receptor	MC1R	16q24.3			yes		yes	yes			yes	yes	yes	yes
78	NX_P30301	Lens fiber major intrinsic protein	MIP	12q13.3			yes		yes		yes		yes	yes	yes	yes
79	NX_O15146	Muscle, skeletal receptor tyrosine kinase	MUSK	9q31.3			yes			yes	yes		yes	yes	yes	yes
80	NX_Q9Y3D7	Mitochondrial import inner membrane 16	PAM16	16p13.3			yes		yes	yes			yes	yes	yes	yes
81	NX_Q8HWS3	DNA-binding protein RFX6	RFX6	6q22.1			yes			yes		yes	yes	yes	yes	yes

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

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1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated	PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
82	NX_Q12908	Ileal sodium/bile acid cotran	SLC10A2	13q33.1			yes		yes				yes		yes	yes
83	NX_P82251	b(0,+)-type amino acid trans	SLC7A9	19q13.11			yes				yes			yes	yes	yes
84	NX_P29371	Neuromedin-K receptor	TACR3	4q24			yes				yes		yes		yes	yes
85	NX_P46597	Acetylserotonin O-methyltra	ASMT	Xp22.33				yes	yes					yes	yes	yes
86	NX_P13236	C-C motif chemokine 4	CCL4	17q12				yes	yes				yes		yes	yes
87	NX_P36544	Neuronal acetylcholine rece	CHRNA7	15q13.3				yes	yes						yes	yes
88	NX_Q6UVW9	C-type lectin domain family	CLEC2A	12p13.31				yes	yes			yes			yes	yes
89	NX_Q9UJW3	DNA (cytosine-5)-methyltra	DNMT3L	21q22.3				yes	yes				yes		yes	yes
90	NX_Q6B811	Dual specificity protein phos	DUSP13	10q22.2				yes	yes						yes	yes
91	NX_O95257	Growth arrest and DNA dam	GADD45G	9q22.2				yes	yes		yes				yes	yes
92	NX_P48546	Gastric inhibitory polypeptid	GIPR	19q13.32				yes	yes			yes			yes	yes
93	NX_Q93077	Histone H2A type 1-C	HIST1H2AC	6p22.2				yes	yes				yes		yes	yes
94	NX_P20671	Histone H2A type 1-D	HIST1H2AD	6p22.2				yes	yes				yes		yes	yes
95	NX_Q6F113	Histone H2A type 2-A	HIST2H2AA3, HIK	1q21.2				yes	yes				yes		yes	yes
96	NX_P41595	5-hydroxytryptamine recept	HTR2B	2q37.1				yes	yes		yes				yes	yes
97	NX_O95256	Interleukin-18 receptor acce	IL18RAP	2q12.1				yes	yes			yes			yes	yes
98	NX_Q9Y691	Calcium-activated potassium	KCNMB2	3q26.32				yes	yes				yes		yes	yes
99	NX_D3W0D1	Killer cell lectin-like receptor	KLRF2	12p13.31				yes	yes				yes		yes	yes
100	NX_Q96A72	Protein mago nashi homolog	MAGOHB	12p13.2				yes	yes		yes		yes		yes	yes
101	NX_Q8IVG9	Humanin	MT-RNR2	MT				yes	yes						yes	yes
102	NX_Q13765	Nascent polypeptide-associ	NACA	12q13.3				yes	yes				yes		yes	yes
103	NX_P41146	Nociceptin receptor	OPRL1	20q13.33				yes	yes				yes		yes	yes
104	NX_Q9NR21	Protein mono-ADP-ribosyltra	PARP11	12p13.32				yes			yes				yes	yes
105	NX_Q96LB9	Peptidoglycan recognition pr	PGLYRP3	1q21.3				yes	yes				yes	yes	yes	yes
106	NX_Q9NQV7	Histone-lysine N-methyltra	PRDM9	5p14.2				yes	yes						yes	yes
107	NX_P0CG48	Polyubiquitin-C	UBC	12q24.31				yes			yes		yes		yes	yes
108	NX_P55089	Urocortin	UCN	2p23.3				yes	yes					yes	yes	yes
109	NX_Q00254	Proteinase-activated recept	F2RL2	5q13.3					yes		yes		yes		yes	yes
110	NX_Q99527	G-protein coupled estrogen	GPER1	7p22.3					yes				yes	yes	yes	yes
111	NX_Q7L7L0	Histone H2A type 3	HIST3H2A	1q42.13					yes		yes		yes		yes	yes
112	NX_Q0VD86	Protein INCA1	INCA1	17p13.2					yes		yes		yes		yes	yes
113	NX_P14616	Insulin receptor-related prot	INSRR	1q23.1					yes		yes		yes		yes	yes
114	NX_Q14953	Killer cell immunoglobulin-lik	KIR2DS5	19					yes		yes		yes		yes	yes
115	NX_Q96D59	E3 ubiquitin-protein ligase R	RNF183	9q32					yes		yes		yes		yes	yes
116	NX_Q8NER1	Transient receptor potential	TRPV1	17p13.2					yes		yes			yes	yes	yes
117	NX_P35125	Ubiquitin carboxyl-terminal t	USP6	17p13.2					yes		yes		yes		yes	yes
118	NX_A8K0Z3	WASH complex subunit 1	WASHC1	9p24.3					yes		yes		yes		yes	yes
119	NX_P0CG04	Immunoglobulin lambda con	IGLC1	22q11.22	yes	yes		yes					yes			
120	NX_Q99217	Amelogenin, X isoform	AMELX	Xp22.2	yes		yes						yes		yes	
121	NX_P55344	Lens fiber membrane intrins	LIM2	19q13.41	yes		yes		yes						yes	

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1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated	PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
122	NX_Q3MUJ2	Phosphatidylinositol N-acety	PIGY	4q22.1	yes	yes			yes						yes	
123	NX_Q9HC23	Prokineticin-2	PROK2	3p13	yes	yes									yes	yes
124	NX_P0DN86	Choriogonadotropin subunit	CGB3, CGB5, CG	19q13.33	yes			yes	yes			yes				
125	NX_P01286	Somatoliberin	GHRH	20q11.23	yes			yes				yes			yes	
126	NX_Q6UXL0	Interleukin-20 receptor subu	IL20RB	3q22.3	yes			yes	yes						yes	
127	NX_Q9Y5K2	Kallikrein-4	KLK4	19q13.41	yes			yes		yes					yes	
128	NX_Q8WVG8	Protein S100-Z	S100Z	5q13.3	yes			yes	yes							
129	NX_Q6UX39	Amelotin	AMTN	4q13.3	yes					yes		yes			yes	
130	NX_P0DML3	Chorionic somatomammotroc	CSH2	17q23.3	yes				yes			yes			yes	
131	NX_Q93079	Histone H2B type 1-H	HIST1H2BH	6p22.2	yes				yes			yes			yes	
132	NX_P23527	Histone H2B type 1-O	HIST1H2BO	6p22.1	yes				yes			yes			yes	
133	NX_Q97980	Minor histocompatibility prot	HMHB1	5q31.3	yes				yes						yes	yes
134	NX_Q5DT21	Serine protease inhibitor Ka:	SPINK9	5q32	yes				yes					yes	yes	
135	NX_A0A0K0K1A5	T cell receptor beta variable	TRBV6-5	7q34		yes		yes	yes						yes	
136	NX_Q9NWF4	Solute carrier family 52, ribo	SLC52A1	17p13.2		yes									yes	yes
137	NX_Q15822	Neuronal acetylcholine recej	CHRNA2	8p21.2						yes					yes	yes
138	NX_P55075	Fibroblast growth factor 8	FGF8	10q24.32				yes	yes	yes					yes	
139	NX_P14653	Homeobox protein Hox-B1	HOXB1	17q21.32				yes	yes						yes	yes
140	NX_Q99748	Neurturin	NRTN	19p13.3				yes	yes	yes					yes	
141	NX_Q9H4Q4	PR domain zinc finger protei	PRDM12	9q34.12				yes	yes						yes	yes
142	NX_Q8WXD0	Relaxin receptor 2	RXFP2	13q13.1				yes	yes						yes	yes
143	NX_Q9H324	A disintegrin and metallopro	ADAMTS10	19p13.2				yes		yes					yes	yes
144	NX_Q7RTU4	Class A basic helix-loop-heli	BHLHA9	17p13.3				yes		yes					yes	yes
145	NX_Q2WEN9	Carcinoembryonic antigen-r	CEACAM16	19q13.31				yes	yes						yes	yes
146	NX_P0CG37	Cryptic protein	CFC1	2q21.1				yes				yes			yes	yes
147	NX_P11230	Acetylcholine receptor subu	CHRNA1	17p13.1				yes		yes					yes	yes
148	NX_Q07001	Acetylcholine receptor subu	CHRND	2q37.1				yes		yes					yes	yes
149	NX_P07510	Acetylcholine receptor subu	CHRNG	2q37.1				yes		yes					yes	
150	NX_Q75838	Calcium and integrin-binding	CIB2	15q25.1				yes		yes					yes	yes
151	NX_P0DP91	Chimeric ERCC6-PGBD3 pr	ERCC6	10q11.23				yes						yes	yes	yes
152	NX_Q92915	Fibroblast growth factor 14	FGF14	13q33.1				yes		yes					yes	
153	NX_Q6ZUT3	FERM domain-containing pr	FRMD7	Xq26.2				yes							yes	yes
154	NX_Q75603	Chorion-specific transcriptio	GCM2	6p24.2				yes							yes	yes
155	NX_Q92847	Growth hormone secretagoç	GHSR	3q26.31				yes							yes	yes
156	NX_Q14626	Interleukin-11 receptor subu	IL11RA	9p13.3				yes		yes					yes	yes
157	NX_C9JR72	Kelch repeat and BTB doma	KBTBD13	15q22.31				yes		yes			yes		yes	
158	NX_B7U540	Inward rectifier potassium c	KCNJ18	17p11.2				yes					yes		yes	yes
159	NX_Q01718	Adrenocorticotropic hormon	MC2R	18p11.21				yes		yes					yes	
160	NX_P13349	Myogenic factor 5	MYF5	12q21.31				yes		yes					yes	yes
161	NX_Q00LT1	Photoreceptor disk compone	PRCD	17q25.1				yes					yes		yes	yes

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1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated	PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
162	NX_Q8NFJ6	Prokineticin receptor 2	PROKR2	20p12.3			yes		yes					yes	yes	
163	NX_O75360	Homeobox protein prophet c	PROP1	5q35.3			yes			yes				yes	yes	
164	NX_Q13702	43 kDa receptor-associated	RAPSN	11p11.2			yes					yes		yes	yes	
165	NX_Q2I0M5	R-spondin-4	RSPO4	20p13			yes		yes			yes		yes	yes	
166	NX_Q9Y5Y9	Sodium channel protein type	SCN10A	3p22.2			yes			yes				yes	yes	
167	NX_Q9UI33	Sodium channel protein type	SCN11A	3p22.2			yes		yes					yes	yes	
168	NX_P0DPK2	Histone H3.Y		5p15.1				yes	yes					yes	yes	
169	NX_P50052	Type-2 angiotensin II recept	AGTR2	Xq23				yes	yes		yes			yes	yes	
170	NX_Q5T4W7	Artemin	ARTN	1p34.1				yes		yes		yes		yes	yes	
171	NX_Q8IX05	CD302 antigen	CD302	2q24.2				yes				yes	yes	yes	yes	
172	NX_Q9Y6F8	Testis-specific chromodoma	CDY1, CDY1B	Yq11.23				yes	yes					yes	yes	
173	NX_P26441	Ciliary neurotrophic factor	CNTF	11q12.1				yes	yes	yes				yes	yes	
174	NX_Q13324	Corticotropin-releasing facto	CRHR2	7p14.3				yes	yes	yes				yes	yes	
175	NX_Q8TE69	Protein CXorf40A	CXorf40A	Xq28				yes	yes	yes				yes	yes	
176	NX_P31995	Low affinity immunoglobulin	FCGR2C	1q23.3				yes		yes		yes		yes	yes	
177	NX_Q6UXV0	GDNF family receptor alpha	GFRAL	6p12.1				yes	yes				yes	yes	yes	
178	NX_O75311	Glycine receptor subunit alp	GLRA3	4q34.1				yes	yes			yes		yes	yes	
179	NX_P0C5Z0	Histone H2A-Bbd type 2/3	H2AFB2, H2AFB3	Xq28				yes	yes	yes				yes	yes	
180	NX_Q43613	Orexin receptor type 1	HCRTR1	1p35.2				yes		yes				yes	yes	yes
181	NX_P33778	Histone H2B type 1-B	HIST1H2BB	6p22.2				yes	yes			yes		yes	yes	
182	NX_O00198	Activator of apoptosis haraki	HRK	12q24.22				yes	yes	yes				yes	yes	
183	NX_Q13639	5-hydroxytryptamine receptc	HTR4	5q32				yes	yes	yes				yes	yes	
184	NX_Q8IU57	Interferon lambda receptor 1	IFNLR1	1p36.11				yes	yes			yes		yes	yes	
185	NX_P43628	Killer cell immunoglobulin-lik	KIR2DL3	19q13.42				yes	yes	yes				yes	yes	
186	NX_P43632	Killer cell immunoglobulin-lik	KIR2DS4	19, 19q13.42				yes	yes	yes				yes	yes	
187	NX_P26717	NKG2-C type II integral men	KLRC2	12p13.2				yes	yes					yes	yes	yes
188	NX_P49286	Melatonin receptor type 1B	MTNR1B	11q14.3				yes	yes	yes				yes	yes	
189	NX_P59046	NACHT, LRR and PYD dom	NLRP12	19q13.42				yes	yes	yes				yes	yes	
190	NX_P34130	Neurotrophin-4	NTF4	19q13.33				yes		yes				yes	yes	yes
191	NX_P51582	P2Y purinoceptor 4	P2RY4	Xq13.1				yes				yes		yes	yes	yes
192	NX_Q5VY80	UL16-binding protein 6	RAET1L	6q25.1				yes	yes	yes				yes	yes	
193	NX_P0DJD3	RNA-binding motif protein, Y	RBM1A1	Yq11.223				yes	yes	yes				yes	yes	
194	NX_Q6ZSG1	E3 ubiquitin-protein ligase R	RNF165	18q21.1				yes	yes	yes					yes	yes
195	NX_Q6PXP3	Solute carrier family 2, facilit	SLC2A7	1p36.23				yes							yes	yes
196	NX_P0DP57	Secreted Ly-6/uPAR domair	SLURP2	8q24.3				yes	yes					yes	yes	
197	NX_Q5MJ70	Speedy protein A	SPDYA	2p23.2				yes	yes						yes	yes
198	NX_Q96A44	SPRY domain-containing SC	SPSB4	3q23				yes	yes	yes				yes	yes	
199	NX_Q5VVX9	Ubiquitin-conjugating enzym	UBE2U	1p31.3				yes		yes		yes		yes	yes	
200	NX_O95045	Uridine phosphorylase 2	UPP2	2q24.1				yes		yes		yes		yes	yes	
201	NX_Q8IU99	Calcium homeostasis modul	CALHM1	10q24.33					yes			yes		yes	yes	yes

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202	NX_Q6UXZ3	CMRF35-like molecule 5	CD300LD	17q25.1						yes		yes		yes				yes	
203	NX_A5D8T8	C-type lectin domain family 1	CLEC18A	16q22.1								yes		yes				yes	yes
204	NX_Q9NQZ3	Deleted in azoospermia protein 1	DAZ1	Yq11.223						yes		yes					yes	yes	
205	NX_Q6RFH8	Double homeobox protein 4	DUX4L9	4q35.2						yes		yes					yes	yes	
206	NX_A1L3X0	Elongation of very long chain fatty acid synthase 1	ELOVL7	5q12.1								yes						yes	yes
207	NX_Q5TYM5	Protein FAM72A	FAM72A	1q32.1						yes		yes						yes	yes
208	NX_Q9NQR9	Glucose-6-phosphatase 2	G6PC2	2q31.1										yes			yes	yes	yes
209	NX_Q86YW7	Glycoprotein hormone beta subunit	GPHB5	14q23.2						yes		yes		yes				yes	yes
210	NX_Q5T6X5	G-protein coupled receptor family C class 6 member A	GPRC6A	6q22.1						yes				yes				yes	yes
211	NX_P54257	Huntingtin-associated protein 1	HAP1	17q21.2						yes		yes						yes	yes
212	NX_Q9UBK5	Hematopoietic cell signal transduction protein 1	HCST	19q13.12						yes				yes				yes	yes
213	NX_Q96KK5	Histone H2A type 1-H	HIST1H2AH	6p22.1						yes				yes				yes	yes
214	NX_P46098	5-hydroxytryptamine receptor 3A	HTR3A	11q23.2						yes		yes						yes	yes
215	NX_Q95264	5-hydroxytryptamine receptor 3B	HTR3B	11q23.2						yes				yes				yes	yes
216	NX_Q99665	Interleukin-12 receptor subunit beta	IL12RB2	1p31.3						yes				yes				yes	yes
217	NX_Q7Z3S9	Notch homolog 2 N-terminal domain	NOTCH2NLA	1q21.1						yes		yes		yes				yes	yes
218	NX_P49683	Prolactin-releasing peptide receptor	PRLHR	10q26.11						yes		yes						yes	yes
219	NX_Q9H0N0	Ras-related protein Rab-6C	RAB6C	2q21.1										yes			yes	yes	yes
220	NX_Q9NXI6	E3 ubiquitin-protein ligase RNF186	RNF186	1p36.13						yes				yes				yes	yes
221	NX_Q9NQW1	Protein transport protein Sec	SEC31B	10q24.31						yes				yes			yes	yes	
222	NX_Q86XT4	E3 ubiquitin-protein ligase TRIM50	TRIM50	7q11.23						yes		yes		yes				yes	
223	NX_Q6R6M4	Ubiquitin carboxyl-terminal hydrolase 17L2	USP17L2	8p23.1						yes							yes	yes	yes
224	NX_Q6RSH7	von Hippel-Lindau-like protein	VHLL	1q22						yes		yes						yes	yes
225	NX_Q8N895	Zinc finger protein 366	ZNF366	5q13.2						yes		yes						yes	yes
226	NX_P01768	Immunoglobulin heavy variable 3-30	IGHV3-30	14q32.33	yes	yes								yes					
227	NX_P81534	Beta-defensin 103	DEFB103A, DEFB103B	8p23.1	yes				yes									yes	
228	NX_Q969J5	Interleukin-22 receptor subunit alpha	IL22RA2	6q23.3	yes				yes									yes	
229	NX_P0DJJ7	Pepsin A-4	PGA4	11q12.2	yes				yes									yes	
230	NX_Q95399	Urotensin-2	UTS2	1p36.23	yes				yes									yes	
231	NX_P31358	CAMPATH-1 antigen	CD52	1p36.11	yes									yes				yes	
232	NX_Q6ZSA7	Leucine-rich repeat-containing protein 55	LRR55	11q12.1	yes					yes								yes	
233	NX_P58294	Prokineticin-1	PROK1	1p13.3	yes												yes	yes	
234	NX_P60153	Inactive ribonuclease-like protein	RNASE9	14q11.2	yes												yes	yes	
235	NX_A0A087WT01	T cell receptor alpha variable region 27	TRAV27	14q11.2		yes		yes		yes									
236	NX_Q8TDN7	Alkaline ceramidase 1	ACER1	19p13.3		yes												yes	
237	NX_Q9Y471	Inactive cytidine monophosphate-dependent protein kinase	CMAHP	6p22.2		yes											yes	yes	
238	NX_Q6TCH4	Membrane progesterin receptor 6	PAQR6	1q22		yes				yes								yes	
239	NX_Q02643	Growth hormone-releasing hormone receptor	GHRHR	7p14.3			yes	yes										yes	
240	NX_Q16671	Anti-Muellerian hormone type 2 receptor	AMHR2	12q13.13			yes					yes						yes	
241	NX_Q9NPB3	Calcium-binding protein 2	CABP2	11q13.2			yes							yes				yes	

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
242	NX_P58418	Clarin-1	CLRN1	3q25.1			yes						yes	yes	
243	NX_Q9NQW8	Cyclic nucleotide-gated cation channel beta-3	CNGB3	8q21.3			yes		yes				yes	yes	
244	NX_Q5T1H1	Protein eyes shut homolog 1	EYS	6q12			yes					yes	yes	yes	
245	NX_O43320	Fibroblast growth factor 16	FGF16	Xq21.1			yes		yes				yes	yes	
246	NX_P12034	Fibroblast growth factor 5	FGF5	4q21.21			yes		yes				yes	yes	
247	NX_Q13461	Forkhead box protein E3	FOXE3	1p33			yes						yes	yes	yes
248	NX_P48165	Gap junction alpha-8 protein	GJA8	1q21.2			yes						yes	yes	yes
249	NX_P30968	Gonadotropin-releasing hormone receptor 1	GNRHR	4q13.2			yes						yes	yes	yes
250	NX_A6NNB3	Interferon-induced transmembrane protein 5	IFITM5	11p15.5			yes						yes	yes	
251	NX_Q9Y4Z2	Neurogenin-3	NEUROG3	10q22.1			yes			yes				yes	yes
252	NX_A6NCS4	Homeobox protein Nkx-2.6	NKX2-6	8p21.2			yes						yes	yes	yes
253	NX_O43316	Paired box protein Pax-4	PAX4	7q32.1			yes						yes	yes	yes
254	NX_Q01453	Peripheral myelin protein 22	PMP22	17p12			yes			yes			yes	yes	
255	NX_P49335	POU domain, class 3, transcription factor 4	POU3F4	Xq21.1			yes		yes				yes	yes	
256	NX_Q15319	POU domain, class 4, transcription factor 3	POU4F3	5q32			yes						yes	yes	yes
257	NX_P78424	POU domain, class 6, transcription factor 2	POU6F2	7p14.1			yes			yes			yes	yes	
258	NX_Q9Y6C5	Protein patched homolog 2	PTCH2	1p34.1			yes						yes	yes	yes
259	NX_Q9Y2M2	Protein SSUH2 homolog	SSUH2	3p25.3			yes						yes	yes	
260	NX_Q11203	Chondroitin-6-sulfate 6-sulfatase	ST3GAL3	1p34.1			yes				yes			yes	yes
261	NX_Q9Y458	T-box transcription factor 22	TBX22	Xq21.1			yes			yes			yes	yes	
262	NX_O75443	Alpha-tectorin	TECTA	11q23.3			yes		yes		yes				
263	NX_Q86X19	Transmembrane protein 17	TMEM17	2p15			yes			yes					yes
264	NX_Q9P0N5	Transmembrane protein 216	TMEM216	11q12.2			yes		yes					yes	
265	NX_P0DMS8	Adenosine receptor A3	ADORA3	1p13.2				yes				yes	yes	yes	
266	NX_P13945	Beta-3 adrenergic receptor	ADRB3	8p11.23				yes	yes				yes	yes	
267	NX_P30926	Neuronal acetylcholine receptor 4	CHRN4	15q25.1				yes	yes				yes	yes	
268	NX_Q8N104	Beta-defensin 106	DEFB106A, DEFB106B	8p23.1				yes	yes				yes	yes	
269	NX_Q14842	Free fatty acid receptor 1	FFAR1	19q13.12				yes					yes	yes	yes
270	NX_Q9NP95	Fibroblast growth factor 20	FGF20	8p22				yes	yes				yes	yes	
271	NX_P55318	Hepatocyte nuclear factor 3A	FOXA3	19q13.32				yes	yes				yes	yes	
272	NX_Q95843	Guanylyl cyclase-activating protein 1C	GUCA1C	3q13.13				yes			yes		yes	yes	
273	NX_O43614	Orexin receptor type 2	HCRTR2	6p12.1				yes					yes	yes	yes
274	NX_Q9Y663	Heparan sulfate glucosaminyltransferase 3A1	HS3ST3A1	17p12				yes					yes	yes	yes
275	NX_Q8IZT8	Heparan sulfate glucosaminyltransferase 5	HS3ST5	6q21				yes					yes	yes	yes
276	NX_Q8IZI9	Interferon lambda-3	IFNL3	19q13.2				yes					yes	yes	yes
277	NX_P40933	Interleukin-15	IL15	4q31.21				yes		yes			yes	yes	
278	NX_P08700	Interleukin-3	IL3	5q31.1				yes	yes				yes	yes	
279	NX_Q1MX18	Protein inscuteable homolog	INSC	11p15.2				yes	yes					yes	yes
280	NX_Q8WWN9	Interactor protein for cytochrome P450 2C8	IPCEF1	6q25.2				yes	yes	yes			yes		
281	NX_P48039	Melatonin receptor type 1A	MTNR1A	4q35.2				yes		yes			yes	yes	

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
282	NX_Q14994	Nuclear receptor subfamily 1	NR1I3	1q23.3				yes				yes		yes	
283	NX_P0CE72	Oncomodulin-1	OCM	7p22.1				yes		yes				yes	
284	NX_Q6ISU1	Pre T-cell antigen receptor α	PTCRA	6p21.1				yes	yes			yes			
285	NX_P33763	Protein S100-A5	S100A5	1q21.3				yes	yes					yes	
286	NX_Q00631	Sarcophilin	SLN	11q22.3				yes		yes				yes	
287	NX_Q8WU08	Serine/threonine-protein kinase	STK32A	5q32				yes				yes			yes
288	NX_Q8IZX4	Transcription initiation factor TAF1L	TAF1L	9p21.1				yes	yes					yes	
289	NX_Q96RP3	Urocortin-2	UCN2	3p21.31				yes	yes					yes	
290	NX_Q9NPB9	Atypical chemokine receptor ACKR4	ACKR4	3q22.1					yes			yes		yes	
291	NX_P25100	Alpha-1D adrenergic receptor	ADRA1D	20p13					yes	yes				yes	
292	NX_Q9Y264	Angiopoietin-4	ANGPT4	20p13					yes	yes				yes	
293	NX_P0DMC3	Apelin receptor early endogenous	APELA	4q32.3					yes				yes	yes	
294	NX_P0C7Q2	Age-related maculopathy susceptibility	ARMS2	10q26.13						yes			yes		yes
295	NX_Q9UHC3	Acid-sensing ion channel 3	ASIC3	7q36.1					yes					yes	yes
296	NX_Q8N1L9	Basic leucine zipper transcription factor 2	BATF2	11q13.1						yes			yes	yes	
297	NX_Q14599	Testis-specific basic protein	BPY2, BPY2B, BF	Yq11.23, Yq11.223					yes	yes			yes	yes	
298	NX_Q8NHW4	C-C motif chemokine 4-like	CCL4L1, CCL4L2	17q12					yes	yes				yes	
299	NX_P51677	C-C chemokine receptor type	CCR3	3p21.31					yes	yes				yes	
300	NX_P10966	T-cell surface glycoprotein	CD8B	2p11.2					yes			yes		yes	
301	NX_Q6PRD7	Cementoblastoma-derived protein	CEMP1	16p13.3								yes	yes	yes	
302	NX_Q9GZZ6	Neuronal acetylcholine receptor	CHRNA10	11p15.4					yes				yes	yes	yes
303	NX_Q8N1N5	Cysteine-rich PAK1 inhibitor	CRIPAK	4p16.3					yes	yes				yes	
304	NX_Q86SG3	Deleted in azoospermia protein	DAZ4	Yq11.23					yes				yes	yes	
305	NX_Q8TF63	Dendritic cell nuclear protein	DCANP1	5q31.1						yes			yes	yes	
306	NX_Q9H295	Dendritic cell-specific transmembrane	DCSTAMP	8q22.3					yes	yes				yes	
307	NX_P21918	D(1B) dopamine receptor	DRD5	4p16.1								yes		yes	yes
308	NX_Q8N1N2	Dynactin-associated protein	DYNAP	18q21.2					yes				yes	yes	
309	NX_Q9NR20	Dual specificity tyrosine-phosphatase	DYRK4	12p13.32						yes		yes			yes
310	NX_Q8IYF1	Elongin-A2	ELOA2	18q21.1					yes	yes				yes	
311	NX_A4GXA9	Probable crossover junction	EME2	16p13.3					yes	yes				yes	
312	NX_Q69383	Endogenous retrovirus group	ERVK-6	7q22.1					yes					yes	yes
313	NX_P47211	Galanin receptor type 1	GALR1	18q23						yes		yes		yes	
314	NX_P35212	Gap junction alpha-4 protein	GJA4	1p34.3					yes	yes				yes	
315	NX_Q8N144	Gap junction delta-3 protein	GJD3	17q21.2					yes	yes			yes		
316	NX_P23416	Glycine receptor subunit alpha	GLRA2	Xp22.2					yes					yes	
317	NX_Q8NEA9	Germ cell-less protein-like 2	GMCL2	5q35.3					yes	yes				yes	
318	NX_P60893	Probable G-protein coupled	GPR85	7q31.1					yes					yes	yes
319	NX_Q9UNN4	TFIIA-alpha and beta-like factor	GTF2A1L	2p16.3						yes			yes	yes	
320	NX_Q7Z2G1	Histone H2B type W-T	H2BFWT	Xq22.2					yes				yes	yes	
321	NX_P28221	5-hydroxytryptamine receptor	HTR1D	1p36.12					yes				yes	yes	

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
322	NX_Q8WXA8	5-hydroxytryptamine receptc	HTR3C	3q27.1					yes	yes				yes	
323	NX_Q70Z44	5-hydroxytryptamine receptc	HTR3D	3q27.1					yes	yes				yes	
324	NX_A5X5Y0	5-hydroxytryptamine receptc	HTR3E	3q27.1					yes	yes				yes	
325	NX_P50406	5-hydroxytryptamine receptc	HTR6	1p36.13					yes	yes				yes	
326	NX_P34969	5-hydroxytryptamine receptc	HTR7	10q23.31						yes		yes		yes	
327	NX_Q2M3T9	Hyaluronidase-4	HYAL4	7q31.32								yes		yes	
328	NX_Q8NFR9	Interleukin-17 receptor E	IL17RE	3p25.3					yes	yes				yes	
329	NX_Q9NPH9	Interleukin-26	IL26	12q15					yes				yes	yes	
330	NX_Q8NEV9	Interleukin-27 subunit alpha	IL27	16p11.2					yes	yes				yes	
331	NX_Q9NZH7	Interleukin-36 beta	IL36B	2q14.1								yes		yes	yes
332	NX_Q96PC2	Inositol hexakisphosphate ki	IP6K3	6p21.31						yes				yes	yes
333	NX_Q14500	ATP-sensitive inward rectifie	KCNJ12	17p11.2					yes	yes				yes	
334	NX_Q7Z418	Potassium channel subfamil	KCNK18	10q25.3								yes		yes	yes
335	NX_Q9NPA1	Calcium-activated potassiun	KCNMB3	3q26.32					yes			yes		yes	
336	NX_Q9BQ31	Potassium voltage-gated ch	KCNS3	2p24.2					yes				yes	yes	
337	NX_Q14943	Killer cell immunoglobulin-lik	KIR3DS1	19					yes	yes				yes	
338	NX_P60372	Keratin-associated protein 1	KRTAP10-4	21q22.3					yes	yes				yes	
339	NX_P60370	Keratin-associated protein 1	KRTAP10-5	21q22.3					yes	yes				yes	
340	NX_P60409	Keratin-associated protein 1	KRTAP10-7	21q22.3					yes	yes				yes	
341	NX_P60410	Keratin-associated protein 1	KRTAP10-8	21q22.3					yes	yes				yes	
342	NX_P60411	Keratin-associated protein 1	KRTAP10-9	21q22.3					yes	yes				yes	
343	NX_P60328	Keratin-associated protein 1	KRTAP12-3	21q22.3					yes	yes				yes	
344	NX_P60329	Keratin-associated protein 1	KRTAP12-4	21q22.3					yes	yes				yes	
345	NX_Q9BQ66	Keratin-associated protein 4	KRTAP4-12	17q21.2					yes	yes				yes	
346	NX_Q6L8G4	Keratin-associated protein 5	KRTAP5-11	11q13.4					yes	yes				yes	
347	NX_Q701N4	Keratin-associated protein 5	KRTAP5-2	11p15.5					yes	yes				yes	
348	NX_Q6L8H2	Keratin-associated protein 5	KRTAP5-3	11p15.5					yes	yes				yes	
349	NX_Q6L8H1	Keratin-associated protein 5	KRTAP5-4	11p15.5					yes	yes				yes	
350	NX_Q6L8G9	Keratin-associated protein 5	KRTAP5-6	11p15.5					yes	yes				yes	
351	NX_P26371	Keratin-associated protein 5	KRTAP5-9	11q13.4					yes	yes				yes	
352	NX_Q8IUUC2	Keratin-associated protein 8	KRTAP8-1	21q22.11					yes	yes				yes	
353	NX_Q5SRR4	Lymphocyte antigen 6 comp	LY6G5C	6p21.33					yes			yes		yes	
354	NX_P21145	Myelin and lymphocyte prote	MAL	2q11.1						yes		yes		yes	
355	NX_Q9P0N8	E3 ubiquitin-protein ligase M	MARCH2	19p13.2					yes	yes				yes	
356	NX_P04201	Proto-oncogene Mas	MAS1	6q25.3					yes					yes	yes
357	NX_P33032	Melanocortin receptor 5	MC5R	18p11.21						yes				yes	yes
358	NX_Q99705	Melanin-concentrating horm	MCHR1	22q13.2					yes					yes	yes
359	NX_Q9H306	Matrix metalloproteinase-27	MMP27	11q22.2								yes	yes		yes
360	NX_Q8TCY5	Melanocortin-2 receptor acc	MRAP	21q22.11					yes	yes				yes	
361	NX_O15457	MutS protein homolog 4	MSH4	1p31.1					yes	yes				yes	

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
362	NX_A0A0C5B5G6	Mitochondrial-derived peptid	MT-RNR1	MT									yes	yes	yes
363	NX_P40205	N-cym protein	MYCNOS	2p24.3					yes				yes	yes	
364	NX_P15172	Myoblast determination prot	MYOD1	11p15.1					yes	yes	yes				
365	NX_Q02577	Helix-loop-helix protein 2	NHLH2	1p13.1					yes	yes				yes	
366	NX_Q9HBY0	NADPH oxidase 3	NOX3	6q25.3					yes					yes	yes
367	NX_Q8IUM7	Neuronal PAS domain-conta	NPAS4	11q13.2					yes					yes	yes
368	NX_Q6W5P4	Neuropeptide S receptor	NPSR1	7p14.3									yes	yes	yes
369	NX_P34982	Olfactory receptor 1D2	OR1D2	17p13.3									yes	yes	yes
370	NX_Q13956	Retinal cone rhodopsin-sens	PDE6H	12p12.3					yes	yes				yes	
371	NX_Q56P42	Pyrin domain-containing pro	PYDC2	3q28					yes	yes				yes	
372	NX_Q15415	RNA-binding motif protein, γ	RBM1F, RBMY1	Yq11.223					yes	yes				yes	
373	NX_Q75677	Ret finger protein-like 1	RFPL1	22q12.2							yes			yes	yes
374	NX_Q9H310	Ammonium transporter Rh t	RHBG	1q22					yes					yes	yes
375	NX_Q6ZNE9	RUN and FYVE domain-con	RUFY4	2q35					yes	yes				yes	
376	NX_Q6ZPB5	Stress-responsive DNAJB4-	SDIM1	6q27					yes				yes	yes	
377	NX_Q9UJW9	SERTA domain-containing p	SERTAD3	19q13.2					yes	yes				yes	
378	NX_Q6ZSM3	Monocarboxylate transporte	SLC16A12	10q23.31					yes					yes	yes
379	NX_Q8TDD2	Transcription factor Sp7	SP7	12q13.13							yes			yes	yes
380	NX_Q5MJ68	Speedy protein C	SPDYC	11q13.1					yes	yes				yes	
381	NX_Q95947	T-box transcription factor TE	TBX6	16p11.2					yes	yes					yes
382	NX_Q86TG1	Transmembrane protein 15C	TMEM150A	2p11.2					yes	yes				yes	
383	NX_Q5T4T1	Transmembrane protein 17C	TMEM170B	6p24.2					yes				yes	yes	
384	NX_Q6UWW9	Transmembrane protein 207	TMEM207	3q28					yes				yes		yes
385	NX_Q8N661	Lysoplasmalogenase	TMEM86B	19q13.42						yes				yes	
386	NX_A6NDV4	Transmembrane protein 8B	TMEM8B	9p13.3					yes		yes			yes	
387	NX_Q9HCX4	Short transient receptor pote	TRPC7	5q31.1					yes	yes	yes				
388	NX_A1L167	Ubiquitin-conjugating enzym	UBE2QL1	5p15.31					yes					yes	yes
389	NX_Q9BXU7	Ubiquitin carboxyl-terminal t	USP26	Xq26.2					yes					yes	yes
390	NX_P01611	Immunoglobulin kappa varia	IGKV1D-12	2p11.2	yes	yes									
391	NX_P01566	Interferon alpha-10	IFNA10	9p21.3	yes									yes	
392	NX_P01571	Interferon alpha-17	IFNA17	9p21.3	yes									yes	
393	NX_P01568	Interferon alpha-21	IFNA21	9p21.3	yes									yes	
394	NX_Q9P0W0	Interferon kappa	IFNK	9p21.2	yes									yes	
395	NX_Q6UXB1	Insulin growth factor-like fan	IGFL3	19q13.32	yes									yes	
396	NX_Q9Y5H9	Protocadherin alpha-2	PCDHA2	5q31.3	yes									yes	
397	NX_P0DJD8	Pepsin A-3	PGA3	11q12.2	yes									yes	
398	NX_Q9UBD3	Cytokine SCM-1 beta	XCL2	1q24.2	yes					yes					
399	NX_A0A075B6T6	T cell receptor alpha variabl	TRAV12-2	14q11.2		yes		yes							
400	NX_A0A0B4J271	T cell receptor alpha variabl	TRAV12-3	14q11.2		yes		yes							
401	NX_A0A0B4J279	T cell receptor alpha variabl	TRAV21	14q11.2		yes		yes							

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
442	NX_Q96BM0	Interferon alpha-inducible pr	IFI27L1	14q32.12				yes						yes	
443	NX_B2RXH2	Lysine-specific demethylase	KDM4E	11q21				yes						yes	
444	NX_P43627	Killer cell immunoglobulin-lik	KIR2DL2	19				yes						yes	
445	NX_P43631	Killer cell immunoglobulin-lik	KIR2DS2	19				yes						yes	
446	NX_Q5VVY1	Alpha N-terminal protein me	METTTL11B	1q24.2				yes						yes	
447	NX_O60882	Matrix metalloproteinase-20	MMP20	11q22.2				yes						yes	
448	NX_Q86YV6	Myosin light chain kinase far	MYLK4	6p25.2				yes		yes					
449	NX_Q9Y466	Nuclear receptor subfamily 2	NR2E1	6q21				yes		yes					
450	NX_Q7Z6K4	Notch-regulated ankyrin rep	NRARP	9q34.3				yes						yes	
451	NX_P58400	Neurexin-1-beta	NRXN1	2p16.3				yes	yes						
452	NX_Q9Y5G1	Protocadherin gamma-B3	PCDHGB3	5q31.3				yes						yes	
453	NX_Q9NZK7	Group IIE secretory phospho	PLA2G2E	1p36.13				yes						yes	
454	NX_P62945	60S ribosomal protein L41	RPL41	12q13.2				yes						yes	
455	NX_Q86UU9	Tachykinin-4	TAC4	17q21.33				yes						yes	
456	NX_Q969D9	Thymic stromal lymphopoiet	TSLP	5q22.1				yes						yes	
457	NX_P47992	Lymphotactin	XCL1	1q24.2				yes		yes					
458	NX_Q5I7T1	Putative Dol-P-Glc:Glc(2)Me	ALG10B	12q12										yes	yes
459	NX_Q6UXT8	ALK and LTK ligand 1	ALKAL1	8q11.23						yes				yes	
460	NX_Q86SG2	Ankyrin repeat domain-cont	ANKRD23	2q11.2					yes					yes	
461	NX_P41238	C->U-editing enzyme APOB	APOBEC1	12p13.31					yes					yes	
462	NX_Q99819	Rho GDP-dissociation inhibi	ARHGDIG	16p13.3						yes				yes	
463	NX_Q8W XK4	Ankyrin repeat and SOCS b	ASB12	Xq11.2					yes					yes	
464	NX_P50553	Achaete-scute homolog 1	ASCL1	12q23.2					yes					yes	
465	NX_Q6XD76	Achaete-scute homolog 4	ASCL4	12q23.3						yes				yes	
466	NX_Q9NY37	Acid-sensing ion channel 5	ASIC5	4q32.1										yes	yes
467	NX_Q6E213	Acyl-CoA wax alcohol acyltr	AWAT2	Xq13.1										yes	
468	NX_Q43825	Beta-1,3-galactosyltransfera	B3GALT2	1q31.2										yes	
469	NX_Q6ZT62	Bargin	BARGIN	22q13.1									yes	yes	
470	NX_P46663	B1 bradykinin receptor	BDKRB1	14q32.2						yes				yes	
471	NX_P62952	Bladder cancer-associated p	BLCAP	20q11.23						yes				yes	
472	NX_Q8IZY5	BH3-like motif-containing ce	BLID	11q24.1										yes	yes
473	NX_P32247	Bombesin receptor subtype-	BRS3	Xq26.3					yes					yes	
474	NX_Q9NRJ1	Protein MOST-1	C8orf17	8q24.3					yes					yes	
475	NX_Q9BXT2	Voltage-dependent calcium	CACNG6	19q13.42					yes					yes	
476	NX_Q6UXS9	Inactive caspase-12	CASP12	11q22.3						yes				yes	
477	NX_A0A0K2S4Q6	Protein CD300H	CD300H	17q25.1					yes					yes	
478	NX_Q95992	Cholesterol 25-hydroxylase	CH25H	10q23.31							yes			yes	
479	NX_P08912	Muscarinic acetylcholine rec	CHRM5	15q14						yes				yes	
480	NX_Q15825	Neuronal acetylcholine rece	CHRNA6	8p11.21					yes					yes	
481	NX_Q96Q77	Calcium and integrin-binding	CIB3	19p13.11					yes	yes					

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
482	NX_Q96AQ7	Cell death activator CIDE-3	CIDEC	3p25.3					yes				yes		
483	NX_Q8IV77	Cyclic nucleotide-gated cation channel subunit 4	CNGA4	11p15.4					yes					yes	
484	NX_Q6PI25	Protein cornichon homolog 2	CNIH2	11q13.2					yes				yes		
485	NX_O00230	Cortistatin	CORT	1p36.22						yes			yes		
486	NX_Q9H112	Cystatin-11	CST11	20p11.21								yes	yes		
487	NX_Q6V0L0	Cytochrome P450 26C1	CYP26C1	10q23.33									yes	yes	
488	NX_P24903	Cytochrome P450 2F1	CYP2F1	19q13.2									yes		yes
489	NX_Q9NS75	Cysteinyl leukotriene receptor 2	CYSLTR2	13q14.2						yes			yes		
490	NX_P59103	D-amino acid oxidase activator-like	DAOA	13q33.2					yes				yes		
491	NX_Q13117	Deleted in azoospermia protein 2	DAZ2	Yq11.223					yes				yes		
492	NX_Q9NR90	Deleted in azoospermia protein 3	DAZ3	Yq11.23					yes				yes		
493	NX_Q5T197	E3 ubiquitin-protein ligase DUB	DCST1	1q21.3					yes				yes		
494	NX_Q96D03	DNA damage-inducible transcription factor 4	DDIT4L	4q24						yes			yes		
495	NX_Q30KQ6	Beta-defensin 114	DEFB114	6p12.3								yes	yes		
496	NX_O43261	Leukemia-associated protein 1	DLEU1	13q14.3						yes			yes		
497	NX_Q92988	Homeobox protein DLX-4	DLX4	17q21.33						yes			yes		
498	NX_O43812	Double homeobox protein 1	DUX1	10q26.3						yes			yes		
499	NX_P0DPD6	Endothelin-converting enzyme 2	ECE2	3q27.1									yes		
500	NX_O14602	Eukaryotic translation initiation factor 1A	EIF1AY	Yq11.223						yes		yes			
501	NX_Q8NG57	Elongin-A3	ELOA3	18q21.1					yes				yes		
502	NX_Q9HB03	Elongation of very long chain fatty acid synthase 3	ELOVL3	10q24.32								yes	yes		
503	NX_Q8N693	Homeobox protein ESX1	ESX1	Xq22.2								yes	yes		
504	NX_Q9NVL1	Protein FAM86C1	FAM86C1	11q13.4					yes	yes					
505	NX_O14843	Free fatty acid receptor 3	FFAR3	19q13.12									yes	yes	
506	NX_Q5NUL3	Free fatty acid receptor 4	FFAR4	10q23.33								yes	yes		yes
507	NX_P10767	Fibroblast growth factor 6	FGF6	12p13.32					yes				yes		
508	NX_Q6QHK4	Factor in the germline alpha	FIGLA	2p13.3					yes				yes		
509	NX_Q6ZQY3	Acidic amino acid decarboxylase 1	GADL1	3p23									yes		
510	NX_P0CL82	G antigen 12I	GAGE12I	Xp11.23					yes	yes					
511	NX_Q13066	G antigen 2B/2C	GAGE2B, GAGE2C	Xp11.23						yes			yes		
512	NX_Q9GZZ7	GDNF family receptor alpha 4	GFRA4	20p13					yes				yes		
513	NX_Q8IZ08	G-protein coupled receptor 135	GPR135	14q23.1					yes				yes		
514	NX_Q8TDT2	Probable G-protein coupled receptor 152	GPR152	11q13.2						yes			yes		
515	NX_Q99678	G-protein coupled receptor 20	GPR20	8q24.3									yes	yes	
516	NX_O00155	Probable G-protein coupled receptor 25	GPR25	1q32.1						yes			yes		
517	NX_Q8NDV2	G-protein coupled receptor 26	GPR26	10q26.13									yes	yes	
518	NX_P46089	G-protein coupled receptor 3	GPR3	1p36.11						yes			yes		
519	NX_O15529	G-protein coupled receptor 42	GPR42	19q13.12									yes	yes	
520	NX_Q96P69	G-protein coupled receptor 78	GPR78	4p16.1									yes	yes	
521	NX_P0C5Y9	Histone H2A-Bbd type 1	H2AFB1	Xq28					yes				yes		

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N		
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated	PPI	IntAct	PPI GOL	Exp PTM	Ab info	Exp function	mutagenesis
522	NX_Q9BXC0	Hydroxycarboxylic acid rece	HCAR1	12q24.31											yes	yes
523	NX_P49019	Hydroxycarboxylic acid rece	HCAR3	12q24.31											yes	yes
524	NX_P0C7T4	Minor histocompatibility prot	HMSD	18q22.1					yes						yes	
525	NX_P35452	Homeobox protein Hox-D12	HOXD12	2q31.1						yes					yes	
526	NX_Q9UBD0	Heat shock transcription fac	HSFX1, HSF2	Xq28						yes		yes				
527	NX_P28566	5-hydroxytryptamine recept	HTR1E	6q14.3						yes					yes	
528	NX_Q75409	Huntingtin-interacting protei	HYPM	Xp11.4					yes	yes						
529	NX_K9M1U5	Interferon lambda-4	IFNL4	19q13.2											yes	yes
530	NX_Q9P0M4	Interleukin-17C	IL17C	16q24.2					yes						yes	
531	NX_Q9HB29	Interleukin-1 receptor-like 2	IL1RL2	2q12.1								yes			yes	
532	NX_B3KU38	IQCJ-SCHIP1 readthrough t	IQCJ-SCHIP1	3q25.32					yes						yes	
533	NX_A1A4Y4	Immunity-related GTPase fa	IRGM	5q33.1								yes			yes	
534	NX_Q13349	Integrin alpha-D	ITGAD	16p11.2					yes						yes	
535	NX_Q9H3M0	Potassium voltage-gated ch	KCNF1	2p25.1					yes						yes	
536	NX_Q9UJ96	Potassium voltage-gated ch	KCNG2	18q23					yes						yes	
537	NX_Q8TAE7	Potassium voltage-gated ch	KCNG3	2p21					yes						yes	
538	NX_Q8TDN1	Potassium voltage-gated ch	KCNG4	16q24.1					yes						yes	
539	NX_Q9ULD8	Potassium voltage-gated ch	KCNH3	12q13.12					yes						yes	
540	NX_Q8NCM2	Potassium voltage-gated ch	KCNH5	14q23.2								yes			yes	
541	NX_Q96T55	Potassium channel subfamil	KCNK16	6p21.2						yes					yes	
542	NX_Q96KK3	Potassium voltage-gated ch	KCNS1	20q13.12					yes						yes	
543	NX_Q6PIU1	Potassium voltage-gated ch	KCNV1	8q23.2					yes						yes	
544	NX_Q14954	Killer cell immunoglobulin-lik	KIR2DS1	19					yes						yes	
545	NX_Q9H2R5	Kallikrein-15	KLK15	19q13.33						yes					yes	
546	NX_Q07627	Keratin-associated protein 1	KRTAP1-1	17q21.2						yes					yes	
547	NX_Q3LI76	Keratin-associated protein 1	KRTAP15-1	21q22.11						yes					yes	
548	NX_Q3SYF9	Keratin-associated protein 1	KRTAP19-7	21q22.11						yes					yes	
549	NX_A1A580	Keratin-associated protein 2	KRTAP23-1	21q22.11						yes					yes	
550	NX_Q3LI64	Keratin-associated protein 6	KRTAP6-1	21q22.11						yes					yes	
551	NX_Q3LI66	Keratin-associated protein 6	KRTAP6-2	21q22.11						yes					yes	
552	NX_Q5T7P3	Late cornified envelope prot	LCE1B	1q21.3						yes					yes	
553	NX_Q5T752	Late cornified envelope prot	LCE1D	1q21.3						yes					yes	
554	NX_Q5T753	Late cornified envelope prot	LCE1E	1q21.3						yes					yes	
555	NX_Q14633	Late cornified envelope prot	LCE2B	1q21.3						yes					yes	
556	NX_Q5TA81	Late cornified envelope prot	LCE2C	1q21.3						yes					yes	
557	NX_Q5TA77	Late cornified envelope prot	LCE3B	1q21.3						yes					yes	
558	NX_Q5T5A8	Late cornified envelope prot	LCE3C	1q21.3						yes					yes	
559	NX_Q5TA78	Late cornified envelope prot	LCE4A	1q21.3						yes					yes	
560	NX_Q5TCM9	Late cornified envelope prot	LCE5A	1q21.3						yes					yes	
561	NX_Q99677	Lysophosphatidic acid recep	LPAR4	Xq21.1								yes			yes	

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N		
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated	PPI	IntAct	PPI GOL	Exp PTM	Ab info	Exp function	mutagenesis
562	NX_Q8WV35	Leucine-rich repeat-containii	LRRC29	16q22.1							yes				yes	
563	NX_Q5VT99	Leucine-rich repeat-containii	LRRC38	1p36.21					yes						yes	
564	NX_Q8NDX9	Lymphocyte antigen 6 comp	LY6G5B	6p21.33					yes			yes				
565	NX_Q95868	Lymphocyte antigen 6 comp	LY6G6D	6p21.33					yes			yes				
566	NX_Q8WZ33	MaFF-interacting protein	MAFIP	4					yes						yes	
567	NX_Q56UN5	Mitogen-activated protein kir	MAP3K19	2q21.3								yes				yes
568	NX_Q96T53	Ghrelin O-acyltransferase	MBOAT4	8p12										yes		yes
569	NX_P41968	Melanocortin receptor 3	MC3R	20q13.2						yes						yes
570	NX_Q969V1	Melanin-concentrating horm	MCHR2	6q16.2											yes	yes
571	NX_Q0VG99	Mesoderm posterior protein	MESP2	15q26.1											yes	yes
572	NX_Q9H2W2	Homeobox protein MIXL1	MIXL1	1q42.12								yes	yes			yes
573	NX_Q96LB2	Mas-related G-protein coupl	MRGPRX1	11p15.1											yes	yes
574	NX_Q96LB1	Mas-related G-protein coupl	MRGPRX2	11p15.1										yes		
575	NX_Q96JQ5	Membrane-spanning 4-dom:	MS4A4A	11q12.2							yes				yes	yes
576	NX_Q60682	Musculin	MSC	8q13.3					yes						yes	
577	NX_Q92886	Neurogenin-1	NEUROG1	5q31.1					yes		yes					
578	NX_Q8IY84	Serine/threonine-protein kin:	NIM1K	5p12								yes				yes
579	NX_P28336	Neuromedin-B receptor	NMBR	6q24.1								yes	yes			
580	NX_P0DPK3	Notch homolog 2 N-terminal	NOTCH2NLB	1q21.2					yes						yes	
581	NX_P0DPK4	Notch homolog 2 N-terminal	NOTCH2NLC	1q21.2					yes						yes	
582	NX_Q9NZP6	Nuclear pore-associated pro	NPAP1	15q11.2					yes						yes	
583	NX_P48146	Neuropeptides B/W recepto	NPBWR2	20q13.33							yes				yes	
584	NX_Q8IZ57	Neurensin-1	NRSN1	6p22.3							yes				yes	
585	NX_Q95665	Neurotensin receptor type 2	NTSR2	2p25.1								yes	yes			
586	NX_Q96G61	Diphosphoinositol polyphos	NUDT11	Xp11.22											yes	
587	NX_Q17RF5	Odontogenesis associated p	ODAPH	4q21.1							yes				yes	
588	NX_Q2M2E3	Outer dense fiber protein 4	ODF4	17p13.1							yes			yes		
589	NX_Q8IZS5	Orofacial cleft 1 candidate g	OFCC1	6p24.3							yes	yes				
590	NX_Q7RTU3	Oligodendrocyte transcriptio	OLIG3	6q23.3							yes				yes	
591	NX_Q9UHM6	Melanopsin	OPN4	10q23.2								yes			yes	
592	NX_A6NND4	Olfactory receptor 2AT4	OR2AT4	11q13.4									yes	yes		
593	NX_Q76001	Olfactory receptor 2J3	OR2J3	6p22.1											yes	yes
594	NX_P61366	Osteocrin	OSTN	3q28									yes	yes		
595	NX_Q5XKR4	Homeobox protein orthoped	OTP	5q14.1									yes	yes		
596	NX_Q15547	P2X purinoceptor 6	P2RX6	22q11.21					yes			yes				
597	NX_Q2NL67	Protein mono-ADP-ribosyltr	PARP6	15q23								yes			yes	
598	NX_Q9BZA8	Protocadherin-11 Y-linked	PCDH11Y	Yp11.2					yes						yes	
599	NX_Q58A44	Prostate collagen triple helix	PCOTH	13q12.12							yes				yes	
600	NX_Q8N328	PiggyBac transposable elerr	PGBD3	10q11.23									yes	yes		
601	NX_Q7Z442	Polycystic kidney disease pr	PKD1L2	16q23.2					yes						yes	

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
602	NX_Q7Z443	Polycystic kidney disease pr	PKD1L3	16q22.2					yes					yes	
603	NX_P81277	Prolactin-releasing peptide	PRLH	2q37.3										yes	yes
604	NX_Q8TCW9	Prokineticin receptor 1	PROKR1	2p13.3								yes	yes		
605	NX_A5LHX3	Proteasome subunit beta ty	PSMB11	14q11.2					yes			yes			
606	NX_Q3KNS1	Patched domain-containing	PTCHD3	10p12.1								yes	yes		
607	NX_P43088	Prostaglandin F2-alpha rece	PTGFR	1p31.1					yes					yes	
608	NX_Q4JDL3	Tyrosine-protein phosphata	PTPN20	10q11.22								yes	yes		
609	NX_W6CW81	Pyrin domain-containing pro	PYDC5	1q23.1					yes					yes	
610	NX_Q09MP3	RAD51-associated protein 2	RAD51AP2	2p24.2					yes						yes
611	NX_Q92737	Ras-like protein family mem	RASL10A	22q12.2							yes			yes	
612	NX_P0DJD4	RNA-binding motif protein, γ	RBMY1C	Yq11.23					yes					yes	
613	NX_Q75679	Ret finger protein-like 3	RFPL3	22q12.3						yes				yes	
614	NX_Q94810	Regulator of G-protein signa	RGS11	16p13.3										yes	yes
615	NX_Q9H0A6	RING finger protein 32	RNF32	7q36.3							yes			yes	
616	NX_Q969Q0	60S ribosomal protein L36a-	RPL36AL	14q21.3							yes				
617	NX_Q8TDU9	Relaxin-3 receptor 2	RXFP4	1q22								yes		yes	
618	NX_P0DPB3	Schwannomin-interacting pr	SCHIP1	3q25.33					yes			yes			
619	NX_P0C7M3	Surfactant-associated protei	SFTA3	14q13.3									yes	yes	
620	NX_Q3KNW5	Solute carrier family 10 mem	SLC10A6	4q21.3							yes			yes	
621	NX_Q9UKG4	Solute carrier family 13 mem	SLC13A4	7q33						yes				yes	
622	NX_Q14916	Sodium-dependent phospho	SLC17A1	6p22.2										yes	yes
623	NX_Q9BR10	Spermatogenesis-associate	SPATA25	20q13.12									yes	yes	
624	NX_Q99865	Spindlin-2A	SPIN2A	Xp11.21					yes					yes	
625	NX_Q969W0	Serine palmitoyltransferase	SPTSSA	14q13.1					yes					yes	
626	NX_Q8NFR3	Serine palmitoyltransferase	SPTSSB	3q26.1					yes					yes	
627	NX_Q8NEQ6	Steroid receptor-associated	SRARP	1p36.13					yes					yes	
628	NX_P32745	Somatostatin receptor type 3	SSTR3	22q13.1						yes				yes	
629	NX_Q60224	Protein SSX4	SSX4, SSX4B	Xp11.23						yes				yes	
630	NX_P21452	Substance-K receptor	TACR2	10q22.1										yes	
631	NX_Q9NYY7	Taste receptor type 2 memb	TAS2R16	7q31.32					yes					yes	
632	NX_Q8IZP1	TBC1 domain family membe	TBC1D3	17q12							yes			yes	
633	NX_Q8NA77	Testis-expressed protein 19	TEX19	17q25.3					yes					yes	
634	NX_Q8IUEO	Homeobox protein TGIF2LY	TGIF2LY	Yp11.2							yes			yes	
635	NX_Q95411	TGFB1-induced anti-apopto	TIAF1	17q11.2							yes			yes	
636	NX_Q969S6	Transmembrane protein 203	TMEM203	9q34.3					yes					yes	
637	NX_Q96NL1	Transmembrane protein 74	TMEM74	8q23.1							yes			yes	
638	NX_Q7Z410	Transmembrane protease s	TMPRSS9	19p13.3							yes			yes	
639	NX_P09430	Spermatid nuclear transition	TNP1	2q35						yes			yes		
640	NX_Q8N2E6	Prosalusin	TOR2A	9q34.11							yes			yes	
641	NX_Q6XPS3	Phosphatidylinositol 3,4,5-tri	TPTE2	13q12.11										yes	yes

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N		
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated	PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
682	NX_Q8TDI8	Transmembrane channel-lik	TMC1	9q21.13			yes									
683	NX_Q9NPZ5	Galactosylgalactosylxylosyl	B3GAT2	6q13				yes								
684	NX_Q86V35	Calcium-binding protein 7	CABP7	22q12.2				yes								
685	NX_Q9Y6F7	Testis-specific chromodoma	CDY2A, CDY2B	Yq11.222				yes								
686	NX_A6NCL1	Geminin coiled-coil domain-	GMNC	3q28				yes								
687	NX_Q6EKJ0	General transcription factor	GTF2IRD2B	7q11.23				yes								
688	NX_P0C025	Nucleoside diphosphate-link	NUDT17	1q21.1				yes								
689	NX_Q14863	POU domain, class 6, trans	POU6F1	12q13.13				yes								
690	NX_P83881	60S ribosomal protein L36a	RPL36A	Xq22.1				yes								
691	NX_P59095	StAR-related lipid transfer p	STARD6	18q21.2				yes								
692	NX_Q9H0W7	THAP domain-containing pr	THAP2	12q21.1				yes								
693	NX_Q43763	T-cell leukemia homeobox p	TLX2	2p13.1				yes								
694	NX_Q504Y3	Zinc finger CW-type PWWP	ZCWPW2	3p24.1				yes								
695	NX_Q8NEG5	E3 ubiquitin-protein ligase	ZSWIM2	2q32.1				yes								
696	NX_Q5BKY6	Putative uncharacterized pr		22q11.21						yes						
697	NX_Q5W150	Putative uncharacterized pr		20q11.21						yes						
698	NX_Q9UNA3	Alpha-1,4-N-acetylglucosam	A4GNT	3q22.3											yes	
699	NX_Q96J65	Multidrug resistance-associ	ABCC12	16q12.1										yes		
700	NX_Q96SE0	Protein ABHD1	ABHD1	2p23.3						yes						
701	NX_Q86XS5	Angiopoietin-related protein	ANGPTL5	11q22.1						yes						
702	NX_Q8N2N9	Ankyrin repeat domain-cont	ANKRD36B	2q11.2						yes						
703	NX_Q96NS5	Ankyrin repeat and SOCS b	ASB16	17q21.31						yes						
704	NX_Q156A1	Ataxin-8	ATXN8	13q21								yes				
705	NX_Q58HT5	Acyl-CoA wax alcohol acyltr	AWAT1	Xq13.1											yes	
706	NX_Q9C0J1	N-acetyllactosaminide beta-	B3GNT4	12q24.31											yes	
707	NX_Q5H9J7	Protein BEX5	BEX5	Xq22.1						yes						
708	NX_Q5S7W7	Uncharacterized protein C1	C10orf55	10q22.2						yes						
709	NX_Q9H7T3	Uncharacterized protein C1	C10orf95	10q24.32						yes						
710	NX_Q8NA57	Uncharacterized protein C1	C12orf50	12q21.32						yes						
711	NX_Q0P5P2	Uncharacterized protein C1	C17orf67	17q22						yes						
712	NX_Q86X59	Putative uncharacterized pr	C17orf82	17q23.2						yes						
713	NX_Q9NVV2	Putative uncharacterized pr	C19orf73	19q13.33						yes						
714	NX_Q95561	Uncharacterized protein C1	C1orf105	1q24.3						yes						
715	NX_Q9BZE7	UPF0193 protein EVG1	C22orf23	22q13.1						yes						
716	NX_Q8TAL5	Uncharacterized protein C9	C9orf43	9q32						yes						
717	NX_Q86XJ0	Calcium homeostasis modul	CALHM3	10q24.33						yes						
718	NX_Q9BXU9	Calcium-binding protein 8	CALN1	7q11.22						yes						
719	NX_Q8N7E2	E3 ubiquitin-protein ligase	CBLL2	Xp22.11											yes	
720	NX_Q494R4	Coiled-coil domain-contain	CCDC153	11q23.3						yes						
721	NX_Q8NCU1	Uncharacterized protein CC	CCDC197	14q32.12						yes						

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N		
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated	PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
722	NX_Q8N4L8	Coiled-coil domain-contains	CCDC24	1p34.1							yes					
723	NX_Q6NSX1	Coiled-coil domain-contains	CCDC70	13q14.3							yes					
724	NX_P51685	C-C chemokine receptor typ	CCR8	3p22.1											yes	
725	NX_P51861	Cerebellar degeneration-rela	CDR1	Xq27.1							yes					
726	NX_Q8N9R6	CMT1A duplicated region tra	CDRT4	17p12							yes					
727	NX_O14627	Homeobox protein CDX-4	CDX4	Xq13.2							yes					
728	NX_Q494W8	CHRNA7-FAM7A fusion pro	CHRFAM7A	15q13.2							yes					
729	NX_Q9Y6N3	Calcium-activated chloride c	CLCA3P	1p22.3								yes				
730	NX_G9CGD6	CNK3/IPCEF1 fusion protei	CNK3/IPCEF1	6q25.2											yes	
731	NX_Q6YFQ2	Cytochrome c oxidase subu	COX6B2	19q13.42							yes					
732	NX_Q8NHU0	Cancer/testis antigen family	CT45A3	Xq26.3							yes					
733	NX_P0DPQ6	DDIT3 upstream open readi	DDIT3	12q13.3					yes							
734	NX_Q5J5C9	Beta-defensin 121	DEFB121	20q11.21							yes					
735	NX_Q6ZPD8	Diacylglycerol O-acyltransfe	DGAT2L6	Xq13.1											yes	
736	NX_O95661	GTP-binding protein Di-Ras:	DIRAS3	1p31.3							yes					
737	NX_Q96T75	Down syndrome critical regi	DSCR8	21q22.13							yes					
738	NX_B3EWF7	Laforin, isoform 9	EPM2A	6q24.3					yes							
739	NX_P60507	Endogenous retrovirus grou	ERVFC1	Xq21.33											yes	
740	NX_P60608	Endogenous retrovirus grou	ERVFC1-1	7q36.2											yes	
741	NX_P87889	Endogenous retrovirus grou	ERVK-10	5q33.3											yes	
742	NX_O42043	Endogenous retrovirus grou	ERVK-18	1q23.3											yes	
743	NX_O71037	Endogenous retrovirus grou	ERVK-19	19q11											yes	
744	NX_Q9YNA8	Endogenous retrovirus grou	ERVK-19	19q12											yes	
745	NX_P61565	Endogenous retrovirus grou	ERVK-21	12q14.1											yes	
746	NX_P62683	Endogenous retrovirus grou	ERVK-21	12q14.1											yes	
747	NX_P61581	Endogenous retrovirus grou	ERVK-24	22q11.21											yes	
748	NX_P63145	Endogenous retrovirus grou	ERVK-24	22q11.21											yes	
749	NX_Q69384	Endogenous retrovirus grou	ERVK-6	7p22.1											yes	
750	NX_Q7LDI9	Endogenous retrovirus grou	ERVK-6	7p22.1											yes	
751	NX_P62685	Endogenous retrovirus grou	ERVK-8	8p23.1											yes	
752	NX_Q902F8	Endogenous retrovirus grou	ERVK-8	8p23.1											yes	
753	NX_P63126	Endogenous retrovirus grou	ERVK-9	6q14.1											yes	
754	NX_Q9UKH3	Endogenous retrovirus grou	ERVK-9	6q14.1											yes	
755	NX_Q8N2X6	Uncharacterized protein EX	EXOC3-AS1	5p15.33							yes					
756	NX_Q96AQ9	Protein FAM131C	FAM131C	1p36.13							yes					
757	NX_A6NMN3	Protein FAM170B	FAM170B	10q11.23					yes							
758	NX_Q96MZ4	Protein FAM218A	FAM218A	4q32.3							yes					
759	NX_Q08E93	Protein FAM27E3	FAM27E3	9q21.11							yes					
760	NX_Q6NXP2	Protein FAM71F2	FAM71F2	7q32.1							yes					
761	NX_Q5RGS3	Protein FAM74A1	FAM74A1	9p12							yes					

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N		
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated	PPI	IntAct	PPI GOL	Exp PTM	Ab info	Exp function	mutagenesis
762	NX_Q5TZK3	Protein FAM74A4/A6	FAM74A4, FAM74A6	9q12							yes					
763	NX_P0C5J1	Putative protein N-methyltransferase 1	FAM86B2	8p23.1					yes							
764	NX_Q86YD7	Protein FAM90A1	FAM90A1	12p13.31							yes					
765	NX_Q8IZU0	Protein FAM9B	FAM9B	Xp22.31							yes					
766	NX_Q96RJ6	Fer3-like protein	FERD3L	7p21.1							yes					
767	NX_Q96Q35	Flagellum-associated coiled-coil protein 1	FLACC1	2q33.1							yes					
768	NX_Q3SYB3	Forkhead box protein D4-like 1	FOXD4L6	9p11.2							yes					
769	NX_A0A2Z4LIS9	Forkhead box protein O3B	FOXO3B	17p11.2								yes				
770	NX_Q6PIV2	Forkhead box protein R1	FOXR1	11q23.3							yes					
771	NX_A1L429	G antigen 12B/C/D/E	GAGE12B, GAGE12C, GAGE12D, GAGE12E	Xp11.23							yes					
772	NX_P0CL80	G antigen 12F	GAGE12F	Xp11.23							yes					
773	NX_P0CL81	G antigen 12G	GAGE12G	Xp11.23							yes					
774	NX_Q9UEU5	G antigen 2D	GAGE2D, GAGE2E, GAGE2F, GAGE2G, GAGE2H, GAGE2I, GAGE2J, GAGE2K, GAGE2L, GAGE2M, GAGE2N, GAGE2O, GAGE2P, GAGE2Q, GAGE2R, GAGE2S, GAGE2T, GAGE2U, GAGE2V, GAGE2W, GAGE2X, GAGE2Y, GAGE2Z	Xp11.23							yes					
775	NX_Q13069	G antigen 5	GAGE5	Xp11.2-p11.4							yes					
776	NX_Q13070	G antigen 6	GAGE6	Xp11.2-p11.4							yes					
777	NX_O60755	Galanin receptor type 3	GALR3	22q13.1											yes	
778	NX_P09565	Putative insulin-like growth factor receptor 1	GIG44, PP9974	11p15.5							yes					
779	NX_A6NEM1	Golgin subfamily A member 9	GOLGA6L9	15q25.2							yes					
780	NX_P46091	G-protein coupled receptor 1	GPR1	2q33.3											yes	
781	NX_Q8TDV5	Glucose-dependent insulin-inducible polypeptide 1	GPR119	Xq26.1											yes	
782	NX_Q9Y2T6	G-protein coupled receptor 5	GPR55	2q37.1											yes	
783	NX_Q9NZD1	G-protein coupled receptor family C member 5D	GPRC5D	12p13.1							yes					
784	NX_Q86UP8	General transcription factor 2	GTF2IRD2	7q11.23							yes					
785	NX_P62684	Endogenous retrovirus group 1 element 1	HERVK_113	19p13.11											yes	
786	NX_Q902F9	Endogenous retrovirus group 1 element 2	HERVK_113	19p13.11											yes	
787	NX_Q9XRX5	HERV-H LTR-associating protein 1	HHLA3	1p31.1							yes					
788	NX_P60008	Spermatid-specific linker histone 1	HILS1	17q21.33											yes	
789	NX_Q9Y5N1	Histamine H3 receptor	HRH3	20q13.33											yes	
790	NX_Q9Y278	Heparan sulfate glucosaminyltransferase 2	HS3ST2	16p12.2											yes	
791	NX_Q96QI5	Heparan sulfate glucosaminyltransferase 6	HS3ST6	16p13.3											yes	
792	NX_Q9BQS6	Heat shock protein beta-9	HSPB9	17q21.2							yes					
793	NX_Q5T764	Interferon-induced protein with tetratricopeptide repeats 1B	IFIT1B	10q23.31							yes					
794	NX_Q9NTI7	PAK4-inhibitor INKA2	INKA2	1p13.2					yes							
795	NX_Q8IXL9	IQ domain-containing protein 2	IQCF2	3p21.2							yes					
796	NX_Q9H252	Potassium voltage-gated channel subfamily H member 6	KCNH6	17q23.3								yes				
797	NX_Q9HB15	Potassium channel subfamily K member 12	KCNK12	2p16.3									yes			
798	NX_Q9ULS6	Potassium voltage-gated channel subfamily S member 2	KCNS2	8q22.2							yes					
799	NX_Q8IYD2	Kelch domain-containing protein 8A	KLHDC8A	1q32.1							yes					
800	NX_Q6PF15	Kelch-like protein 35	KLHL35	11q13.4							yes					
801	NX_Q2WVGJ6	Kelch-like protein 38	KLHL38	8q24.13							yes					yes

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
802	NX_B2CW77	Killin	KLLN	10q23.31										yes	
803	NX_Q7Z3Y9	Keratin, type I cytoskeletal 2	KRT26	17q21.2									yes		
804	NX_Q3SY46	Keratin-associated protein 1	KRTAP13-3	21q22.11						yes					
805	NX_P0C7H8	Keratin-associated protein 2	KRTAP2-3	17q21.2						yes					
806	NX_Q9BYR9	Keratin-associated protein 2	KRTAP2-4	17q21.2						yes					
807	NX_Q8NBH2	Kyphoscoliosis peptidase	KY	3q22.2					yes						
808	NX_Q6JVE6	Epididymal-specific lipocalin	LCN10	9q34.3										yes	
809	NX_P62502	Epididymal-specific lipocalin	LCN6	9q34.3										yes	
810	NX_Q3B8N2	Galectin-9B	LGALS9B	17p11.2						yes					
811	NX_Q6DKI2	Galectin-9C	LGALS9C	17p11.2						yes					
812	NX_Q9UPM6	LIM/homeobox protein Lhx6	LHX6	9q33.2						yes					
813	NX_P0CW20	LIM and senescent cell antiç	LIMS4	2q13						yes					
814	NX_Q96MT4	Uncharacterized protein enc	LINC01600	6p25.2						yes					
815	NX_Q8TE12	LIM homeobox transcription	LMX1A	1q23.3						yes					
816	NX_Q8N112	Leucine-rich single-pass me	LSMEM2	3p21.31						yes					
817	NX_Q8N8X9	Protein mab-21-like 3	MAB21L3	1p13.1						yes					
818	NX_Q8N6F8	Methyltransferase-like protei	METTTL27	7q11.23						yes					
819	NX_E2RYF6	Mucin-22	MUC22	6p21.33									yes		
820	NX_E9PQ53	NADH dehydrogenase [ubiq	NDUFC2-KCTD1	11q14.1					yes						
821	NX_Q9HD90	Neurogenic differentiation fa	NEUROD4	12q13.2						yes					
822	NX_P48145	Neuropeptides B/W receptor	NPBWR1	8q11.23										yes	
823	NX_Q9Y5X5	Neuropeptide FF receptor 2	NPFFR2	4q13.3										yes	
824	NX_E9PJ15	Nuclear pore complex-intera	NPIPA7	16p13.11						yes					
825	NX_Q8WWG1	Pro-neuregulin-4, membranç	NRG4	15q24.2						yes					
826	NX_Q96DL1	NXPE family member 2	NXPE2	11q23.3						yes					
827	NX_Q6U736	Opsin-5	OPN5	6p12.3							yes				
828	NX_P47884	Olfactory receptor 1D4	OR1D4	17p13.3						yes					
829	NX_Q9H205	Olfactory receptor 2AG1	OR2AG1	11p15.4						yes					
830	NX_Q5JUK9	P antigen family member 3	PAGE3	Xp11.21						yes					
831	NX_Q07326	Phosphatidylinositol-glycan I	PIGF	2p21					yes						
832	NX_Q9BZM2	Group IIF secretory phospho	PLA2G2F	1p36.12										yes	
833	NX_Q6S545	POTE ankyrin domain family	POTEH	22q11.1						yes					
834	NX_Q9NQW5	Probable histone-lysine N-m	PRDM7	16q24.3						yes					
835	NX_F7VJQ1	Alternative prion protein	PRNP	20p13									yes		
836	NX_A6NJB7	Proline-rich protein 19	PRR19	19q13.2						yes					
837	NX_P86479	Proline-rich protein 20C	PRR20C	13q21.1						yes					
838	NX_P86480	Proline-rich protein 20D	PRR20D	13q21.1						yes					
839	NX_P86478	Proline-rich protein 20E	PRR20E	13q21.1						yes					
840	NX_Q9NV39	Proline-rich protein 34	PRR34	22q13.31						yes					
841	NX_O14603	PTPN13-like protein, Y-link	PRY, PRY2, PRY	Yq11.23, Yq11.223									yes		

Supplementary Table 2: Evidence for the 950 non-MS-based PE1 neXtProt Proteins (ordered by neXtProt accession code, Column A, for 906 with data)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N		
1	accession code	protein name	gene name(s)	chromosome	Edman	textbook	Disease mu	3D structure	SP curated	PPI	IntAct PPI	GOL	Exp PTM	Ab info	Exp function	mutagenesis
842	NX_Q96QS6	Serine/threonine-protein kinase	PSKH2	8q21.3							yes					
843	NX_Q9UBK7	Rab-like protein 2A	RABL2A	2q14.1							yes					
844	NX_A6NJZ7	RIMS-binding protein 3C	RIMBP3C	22q11.21					yes							
845	NX_Q0D2K3	Protein ripply1	RIPPLY1	Xq22.3							yes					
846	NX_Q5TAB7	Protein ripply2	RIPPLY2	6q14.2							yes					
847	NX_Q8TDE3	Ribonuclease 8	RNASE8	14q11.2											yes	
848	NX_Q8N4F7	RING finger protein 175	RNF175	4q31.3							yes					
849	NX_Q9H0X6	RING finger protein 208	RNF208	9q34.3							yes					
850	NX_Q5QGT7	Receptor-transporting protein RTP2	RTP2	3q27.3							yes					
851	NX_Q14D33	Receptor-transporting protein RTP5	RTP5	2q37.3							yes					
852	NX_Q9NSD7	Relaxin-3 receptor 1	RXFP3	5p13.2											yes	
853	NX_Q5SY68	Protein S100-A7-like 2	S100A7L2	1q21.3							yes					
854	NX_Q5TGI4	Sterile alpha motif domain-containing	SAMD5	6q24.3								yes				
855	NX_Q8N6R1	Stress-associated endoplasmic reticulum	SERP2	13q14.11							yes					
856	NX_Q86WD7	Serpin A9	SERPINA9	14q32.13											yes	
857	NX_Q8IWX5	Sphingosine-1-phosphate phosphatase	SGPP2	2q36.1											yes	
858	NX_A6NIM6	Solute carrier family 15 member	SLC15A5	12p12.3							yes					
859	NX_Q6ZT89	Solute carrier family 25 member	SLC25A48	5q31.1							yes					
860	NX_Q9NRQ5	Single-pass membrane and	SMCO4	11q21							yes					
861	NX_Q9BVW6	Small integral membrane protein	SMIM2	13q14.11							yes					
862	NX_Q9BZL3	Small integral membrane protein	SMIM3	5q33.1							yes					
863	NX_Q9NSN8	Gamma-1-syntrophin	SNTG1	8q11.21					yes							
864	NX_Q5T0L3	Spermatogenesis-associated	SPATA46	1q23.3							yes					
865	NX_Q6RVD6	Spermatogenesis-associated	SPATA8	15q26.2							yes					
866	NX_Q495Y8	Speedy protein E2	SPDYE2	7q22.1							yes					
867	NX_Q9BXX8	Spermatogenic leucine zipper	SPZ1	5q14.1							yes					
868	NX_Q8IWL8	Saitohin	STH	17q21.31					yes							
869	NX_Q16559	T-cell acute lymphocytic leukemia	TAL2	9q31.2							yes					
870	NX_Q9NYW7	Taste receptor type 2 member	TAS2R1	5p15.31											yes	
871	NX_Q9NYW0	Taste receptor type 2 member	TAS2R10	12p13.2											yes	
872	NX_Q9NYV9	Taste receptor type 2 member	TAS2R13	12p13.2											yes	
873	NX_Q9NYV8	Taste receptor type 2 member	TAS2R14	12p13.2							yes					
874	NX_Q9NYW5	Taste receptor type 2 member	TAS2R4	7q34											yes	
875	NX_Q9NYW4	Taste receptor type 2 member	TAS2R5	7q34											yes	
876	NX_Q9NYW3	Taste receptor type 2 member	TAS2R7	12p13.2											yes	
877	NX_Q9NYW2	Taste receptor type 2 member	TAS2R8	12p13.2											yes	
878	NX_Q6DHY5	TBC1 domain family member	TBC1D3G	17q12							yes					
879	NX_Q6SJ96	TATA box-binding protein-like	TBPL2	14q22.3								yes				
880	NX_Q3Y452	Testis development-related	TDRG1	6p21.2								yes				
881	NX_Q9BXU2	Testis-expressed protein 13	TEX13B	Xq22.3							yes					

