

Supplementary Table 7. Effect of sequence variants associated with RA overall or its seropositive/seronegative subsets on levels of 4,789 proteins in plasma of 35,559 Icelanders, using the SomaScan[®] platform.

pQTL variant	R2 to lead GW variant	chr (var.)	pos. (var.)	Gene (var.)	region start	region end	EA	OA	EF (%)	cis/trans	distTSS	Gene (prot.)	chr	strand (prot.)	TSS (prot.)	shortname (prot.)	longname (prot.)	LD size	clis-cis-eQTL (e) / coding (e) / genes	beta (unadj.)	-Log10 (P) (unadj.)	beta (adj.)	-Log10 (P) (adj.)	Rank (cond. sign.)	Count (cond. sign.)	Rank Proteins per pQTL	Count Proteins per pQTL	Rank pQTL per Protein	Count pQTL per Protein	variance var. (var.)	var. expl (cumul.)	
r2476601	1	chr1	113761186	PTPN22	112761186	114761186	A	C	13.32	trans	NA	CCL19	chr9	-	34691727	MIP-3b	C-C motif chemokine 19	Q99731	PTPN22 (c)	0.09	12.76	0.09	12.76	1	1	5	6	15	0.002	0.055		
r2476601	1	chr1	113834946	PTPN22	112834946	114834946	A	G	13.32	trans	NA	CAST	chr5	-	96622036	Catestatin	Catestatin	P20610	PTPN22 (c)	-0.10	14.08	-0.10	14.08	1	1	5	6	15	0.002	0.062		
r2476601	1	chr1	113834946	PTPN22	112834946	114834946	A	G	13.32	trans	NA	CCL19	chr9	-	34691727	MIP-3b	C-C motif chemokine 19	P20452	PTPN22 (c)	-0.08	8.87	-0.08	8.87	1	1	5	6	8	0.001	0.122		
r2476601	1	chr1	113834946	PTPN22	112834946	114834946	A	G	13.32	trans	NA	GRIN2D	chr4	-	52030321	GRIN2D	Glutamate receptor ionotropic, delta-2	OQ4324	PTPN22 (c)	-0.08	9.95	-0.08	9.95	1	1	4	5	9	0.001	0.165		
r2476601	1	chr1	113834946	PTPN22	112834946	114834946	A	G	13.32	trans	NA	PRKRA	chr4	-	14623494	PRKRA	Protein tyrosine phosphatase non-receptor type 4	P20447	PTPN22 (c)	0.09	10.59	0.09	10.59	1	1	2	5	14	0.002	0.064		
r335677470	1	chr3	58197909	DNASE1L3	57197909	59197909	A	G	7.59	trans	NA	CELF2	chr10	-	10462514	CELF2	CUGBP Elav-like family member 2	O66319	DNASE1L3 (c)	-0.12	15.32	-0.12	15.32	1	1	4	8	1	3	0.002	0.017	
r335677470	1	chr3	58197909	DNASE1L3	57197909	59197909	A	G	7.59	trans	NA	EPHB3	chr17	-	7705201	Ephrin-B3	Ephrin-B3	P15768	DNASE1L3 (c)	-0.10	10.94	-0.10	10.94	1	1	6	8	2	2	0.002	0.018	
r335677470	1	chr3	58197909	DNASE1L3	57197909	59197909	A	G	7.59	trans	NA	FCGR1A	chr1	+	149782070	FCGR1A	High affinity immunoglobulin gamma Fc receptor 1	P12344	DNASE1L3 (c)	-0.10	10.13	-0.10	10.13	1	1	7	8	3	0.001	0.023		
r335677470	1	chr3	58197909	DNASE1L3	57197909	59197909	A	G	7.59	trans	NA	FCN2	chr9	-	134864061	FCN2	Ficolin-2	P15455	DNASE1L3 (c)	0.11	11.28	0.11	11.28	1	1	5	8	5	0.002	0.355		
r335677470	1	chr3	58197909	DNASE1L3	57197909	59197909	A	G	7.59	trans	NA	FCN3	chr1	-	2734862	Ficolin-3	Ficolin-3	OT6636	DNASE1L3 (c)	0.10	9.31	0.10	9.25	1	1	8	8	12	13	0.001	0.18	
r335677470	1	chr3	58197909	DNASE1L3	57197909	59377614	A	G	7.59	trans	NA	HIST2H2BE	chr1	-	14686682	H2BE	Histone H2B type 2-E	OT6178	DNASE1L3 (c)	-0.23	49.79	-0.23	49.79	1	2	8	1	5	0.007	0.027		
r335677470	1	chr3	58197909	DNASE1L3	57197909	59197909	A	G	7.59	trans	NA	HIST2H2A	chr1	-	22845789	H2A3	Histone H2A type 3	QT170	DNASE1L3 (c)	-0.16	25.22	-0.16	25.22	1	1	3	8	1	5	0.004	0.022	
r335677470	1	chr3	58197909	DNASE1L3	57197909	59233680	A	G	7.59	trans	NA	HIST3H2BB	chr1	-	228458106	H2BB3	Histone H2B type 3-B	Q6N257	DNASE1L3 (c)	-0.23	51.99	-0.23	51.99	1	2	1	8	1	4	0.007	0.026	
r335677470	1	chr6	137874014	TNFAIP3	136874014	13876192	T	G	2.54	cis	7698	TNFAIP3	chr6	+	137866516	TNFAIP3	Tumor necrosis factor alpha-inducible protein 3	P21580	43	TNFAIP3 (c)	0.40	54.63	0.40	54.63	1	2	1	1	1	3	0.008	0.024
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	TNAGL1	chr1	+	31576383	TNAGL	Tubularinestrolis nephritis antigen-like	Q5ZGM7	SH2B3 (c)	0.06	10.89	0.06	10.89	1	1	85	126	7	9	0.001	0.072	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	CCL19	chr9	-	34691727	MIP-3b	C-C motif chemokine 19	Q99731	SH2B3 (c)	0.07	14.94	0.07	14.94	1	1	48	126	3	5	0.002	0.055	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	CD4	chr1	-	160862002	CD24	Natural killer cell receptor 2B4	Q9NZV8	SH2B3 (c)	0.06	10.85	0.06	10.85	1	1	88	126	3	3	0.001	0.018	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	CD134L2	chr16	-	7043908	SIAB	CMP-N-acetylneuraminate-beta-galactosidase-4	OT4478	SH2B3 (c)	0.06	13.49	0.06	13.49	1	1	59	126	1	2	0.002	0.016	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	BTAS3	chr6	+	26440411	BTAS3	Butyrophilin subfamily 3 member A3	Q04478	SH2B3 (c)	0.05	10.16	0.05	10.16	1	1	97	126	2	2	0.001	0.328	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	SELPLG	chr12	-	108233894	SELPL	P-selectin glycoprotein ligand 1	OT4242	SH2B3 (c)	0.07	13.58	0.07	13.58	1	1	79	126	12	18	0.002	0.135	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	ESM1	chr5	-	54985966	Endocan	Endothelial cell-specific molecule 1	Q9N300	SH2B3 (c)	0.06	11.90	0.06	11.90	1	1	73	126	3	10	0.001	0.043	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	SEMA7A	chr15	-	74433959	Semaphorin-7A	Semaphorin-7A	OT5326	SH2B3 (c)	0.10	28.12	0.10	28.12	1	1	21	126	6	8	0.004	0.063	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	PRSS57	chr19	-	895461	PRSS57	Serine protease 57	Q6UW92	SH2B3 (c)	0.06	10.11	0.06	10.11	1	1	101	126	4	7	0.001	0.196	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	CD160	chr19	-	1729405	CD160	CD160 antigen	OT5911	SH2B3 (c)	0.12	43.09	0.12	43.09	1	1	4	128	3	3	0.001	0.222	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	IGFLR1	chr19	-	35742450	TM149	IGF-like family receptor 1	Q6H665	SH2B3 (c)	0.08	18.35	0.08	18.35	1	1	38	126	3	3	0.003	0.135	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	PEAR1	chr1	+	15689396	PEAR1	Platelet endothelial aggregation receptor 1	Q9YV43	SH2B3 (c)	0.10	29.53	0.10	29.53	1	1	18	126	4	14	0.004	0.115	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	SIGLEC5	chr19	-	5163034	Siglec5	Sialic acid-binding Ig-like lectin 5	OT5389	SH2B3 (c)	0.05	10.27	0.05	10.27	1	1	84	126	3	8	0.001	0.369	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	CD20L3	chr19	-	54738508	KOJL3	Killer cell immunoglobulin-like receptor 2DL3	PA8268	SH2B3 (c)	0.05	10.83	0.05	10.83	1	1	69	126	3	12	0.001	0.461	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	FJK1	chr11	-	35618196	FJK1	Four-jointed box protein 1	Q6V9R8	SH2B3 (c)	0.08	20.01	0.08	20.35	1	1	36	126	4	6	0.003	0.087	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	CD97	chr19	-	14381143	CD97	CD97 antigen	PA8960	SH2B3 (c)	0.07	15.72	0.07	15.72	1	1	45	126	4	5	0.002	0.081	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	SRSF5	chr20	-	43457863	SRSF5	Serine/arginine-rich splicing factor 6	Q13247	SH2B3 (c)	0.06	10.59	0.06	10.59	1	1	91	126	1	4	0.001	0.017	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	ANG2	chr12	-	4780626	ANG2	Angiogenin-induced protein 2	OT8632	SH2B3 (c)	0.08	20.42	0.08	20.42	1	1	34	126	8	9	0.003	0.069	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	APOL3	chr22	-	36166177	APOL3	Apolipoprotein L3	OT5236	SH2B3 (c)	0.08	18.08	0.08	18.08	1	1	39	126	3	5	0.003	0.307	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	PCDH9	chr13	-	67230336	PCDH9	Protocadherin-9	OT5C56	SH2B3 (c)	0.05	9.24	0.05	9.19	1	1	117	126	12	13	0.001	0.108	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	PRG2	chr11	-	57390567	EMBP	Bone marrow proteolipin	P13727	SH2B3 (c)	0.05	10.15	0.05	10.15	1	1	99	126	5	8	0.001	0.021	
r111338191_r330621	0.84	chr12	11038673	SH2B3	11038673	11238673	A	AAAT1	35.42	trans	NA	CD300A	chr17	-	74466372	CM5H9	CD300A-like molecule B	Q8UGN4	SH2B3 (c)	0.06	11.30	0.06	11.03	1	1	82	126	6	6	0.002	0.298	
r111338191_r330621</																																

pQTL variant	R2 to lead GWAS variant	chr	pos (var.)	Gene (var.)	region start	region end	EA	OA	EAF (%)	cis/trans	dist/SS	Gene (prot.)	chr (prot.)	strand (prot.)	TSS (prot.)	shortname	longname	UniProt	LD cis-eQTL (r)	beta coding (g)	beta (unadj)	-Log10 (P) (unadj)	beta (adj)	-Log10 (P) (adj)	Rank (cond. sign.)	Count (cond. sign.)	Rank Proteins per Protein	Count Proteins per pQTL	Rank pQTL per Protein	Count pQTL per Protein	var. explain (%)	var. explain (sum)
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	CSF1R	chr5	-	150113372	M-CSF-R	Macrophage colony-stimulating factor 1 receptor	P07333	14	SH2B3 (c)	0.09	23.25	0.09	23.25	1	1	29	126	6	18	0.004	0.161
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	CSF2RA	chrX	+	1268799	CSF2R	Granulocyte-macrophage colony-stimulating factor	P15509	14	SH2B3 (c)	0.05	9.47	0.05	9.47	1	1	109	126	4	5	0.001	0.029
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	CST7	chr20	-	2494229	CYIF	Cystatin-F	P07696	14	SH2B3 (c)	0.06	10.56	0.06	10.56	1	1	52	126	6	8	0.001	0.289
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr10	-	7827784	IPR-10	C-X-C motif chemokine 10	P02778	14	SH2B3 (c)	0.06	20.69	0.06	20.69	1	1	28	126	2	3	0.002	0.038	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr4	-	76336197	L-TAC	C-X-C motif chemokine 11	O14625	14	SH2B3 (c)	0.10	33.94	0.10	33.94	1	1	11	126	6	14	0.005	0.126	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr19	-	4229195	IL2TB	Interleukin-27 subunit beta	Q14213	14	SH2B3 (c)	0.05	9.94	0.05	9.94	1	1	103	126	9	9	0.001	0.543	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr5	-	8438487	EDL3	EGF-like repeat and discoidin-like domain-containing protein 3	Q43854	14	SH2B3 (c)	-0.06	12.46	-0.06	12.46	1	1	69	126	5	7	0.001	0.031	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr1	-	1046929	FCG3R	Fc gamma 3 receptor subunit alpha	Q07511	14	SH2B3 (c)	0.06	28.69	0.06	28.69	1	1	17	126	5	17	0.005	0.18	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr14	-	6925515	GLT11	Polypeptide N-acetylglucosaminyltransferase 16	Q0N428	14	SH2B3 (c)	0.08	20.18	0.08	20.18	1	1	37	126	2	7	0.003	0.058	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr17	-	4932274	GP1BA	Platelet glycoprotein Ib alpha chain	P07359	14	SH2B3 (c)	0.14	60.78	0.14	60.78	1	1	2	126	2	16	0.008	0.095	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr19	+	544033	Granzyme M	Granzyme M	P61124	14	SH2B3 (c)	0.06	10.48	0.06	10.48	1	1	93	126	3	4	0.001	0.024	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr5	-	16020354	SICAM2	Intracellular adhesion molecule 2	P13598	14	SH2B3 (c)	0.06	20.59	0.06	20.59	1	1	33	126	3	7	0.003	0.035	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr5	-	159330473	IL-12 p40	Interleukin-12 subunit beta	P29460	14	SH2B3 (c)	0.10	34.07	0.10	34.07	1	1	10	126	3	8	0.005	0.149	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr11	-	71997943	IL-18 BPa	Interleukin-18-binding protein	Q5998	14	SH2B3 (c)	0.10	28.60	0.10	28.60	1	1	19	126	2	6	0.005	0.044	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr19	-	1403179	TCOR	Interleukin-27 receptor subunit alpha	Q6U161	14	SH2B3 (c)	0.10	26.38	0.10	26.38	1	1	24	126	4	5	0.004	0.359	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr7	-	8022279	Sema E	Semaphorin-3C	Q59885	14	SH2B3 (c)	0.07	16.88	0.07	16.88	1	1	42	126	4	7	0.002	0.103	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr1	-	1561497	SEMA4	Semaphorin-4A	Q91351	14	SH2B3 (c)	0.06	11.54	0.06	11.54	1	1	76	126	14	18	0.002	0.135	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr19	-	4581484	SEMA6B	Semaphorin-6B	Q9H373	14	SH2B3 (c)	0.07	14.68	0.07	14.68	1	1	50	126	8	9	0.002	0.088	
rs3184504	1	chr12	11446804	SH2B3	110369116	112446804	T	C	37.86	trans	NA	chr11	-	5797553	C1-Esterase Inh1	Plasma proteinase C1 inhibitor	P05155	14	SH2B3 (c)	-0.05	9.41	-0.05	9.41	1	1	219	126	5	5	0.001	0.199	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr19	-	5164679	SIG14	Sialic acid-binding Ig-like lectin 14	Q8RE12	14	SH2B3 (c)	0.05	9.39	0.05	9.39	1	1	110	126	3	4	0.001	0.596	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr1	-	16323263	SLAMF6	SLAMF6 family member 6	Q9SDJ3	14	SH2B3 (c)	0.06	12.51	0.06	12.51	1	1	58	126	3	3	0.002	0.034	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr7	-	97731968	TNFI	Prothymosin-1	P20366	14	SH2B3 (c)	0.07	16.27	0.07	16.27	1	1	43	126	3	4	0.003	0.046	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr6	-	33314387	TSPN	Tapsin	Q15533	14	SH2B3 (c)	0.06	10.85	0.06	10.85	1	1	87	126	3	3	0.001	0.141	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr1	-	155209180	TSP3	Thrombospondin-3	P49746	14	SH2B3 (c)	-0.06	10.11	-0.06	10.11	1	1	100	126	8	8	0.002	0.078	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr1	-	12166947	TNF- β	Tumor necrosis factor receptor superfamily member 1B	P20333	14	SH2B3 (c)	0.06	13.30	0.06	13.30	1	1	61	126	4	8	0.002	0.041	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr1	-	12166947	TNF- β	Tumor necrosis factor receptor superfamily member 1B	P20333	14	SH2B3 (c)	0.06	10.75	0.06	10.75	1	1	60	126	7	7	0.001	0.029	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr13	+	10626229	BAFF	Tumor necrosis factor ligand superfamily member 1	Q9Y275	14	SH2B3 (c)	0.06	12.84	0.06	12.84	1	1	67	126	5	6	0.002	0.022	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr9	-	11493004	CD30 Ligand	Tumor necrosis factor ligand superfamily member 8	P9Y2971	14	SH2B3 (c)	0.06	14.10	0.06	14.10	1	1	53	126	5	10	0.002	0.085	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr6	-	14874980	UST	Urolysin-2-sulfotransferase	Q9Y2C2	14	SH2B3 (c)	0.08	20.40	0.08	20.40	1	1	35	126	4	6	0.003	0.072	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr1	-	10076339	VCAM1-1	Vascular cell adhesion protein 1	P19320	14	SH2B3 (c)	0.13	53.46	0.13	53.46	1	1	3	126	2	11	0.008	0.055	
rs3184504	1	chr12	11446804	SH2B3	110446804	112446804	T	C	37.86	trans	NA	chr16	-	61131	WFKK1	WAP, kazal, immunoglobulin, kunitz and NTR domain	Q6N228	14	SH2B3 (c)	0.06	11.77	0.06	11.77	1	1	78	126	4	4	0.002	0.036	
rs4766578	0.96	chr12	11446657	SH2B3	11046657	11246657	T	A	38.62	trans	NA	chr11	-	5738110	PRG3	Proteoglycan 3	Q9Y278	13	SH2B3 (c)	0.08	23.66	0.08	23.66	1	1	27	126	5	15	0.004	0.062	
rs4766578	0.96	chr12	11446657	SH2B3	11046657	11246657	T	A	38.62	trans	NA	chr16	-	6800064	DPEP2	Dipeptidase 2	Q2H448	13	SH2B3 (c)	0.06	11.04	0.06	11.04	1	1	81	126	7	10	0.002	0.172	
rs33530551	0.96	chr12	11449627	SH2B3	11049627	11249627	A	AC	38.59	trans	NA	chr9	-	34710167	Col11c1	C-11-morf chemokine 21	Q00595	13	SH2B3 (c)	0.06	13.84	0.06	13.84	1	1	56	126	6	10	0.002	0.15	
rs33530551	0.96	chr12	11449627	SH2B3	11049627	11249627	A	AC	38.59	trans	NA	chr9	-	4739782	MDC	C-11-morf chemokine 22	Q00626	13	SH2B3 (c)	0.06	10.16	0.06	10.16	1	1	62	126	7	12	0.002	0.119	
rs33530551	0.96	chr12	11449627	SH2B3	11049627	11249627	A	AC	38.59	trans	NA	chr9	-	116153751	PAPP-A	Papain-1	Q12119	13														