

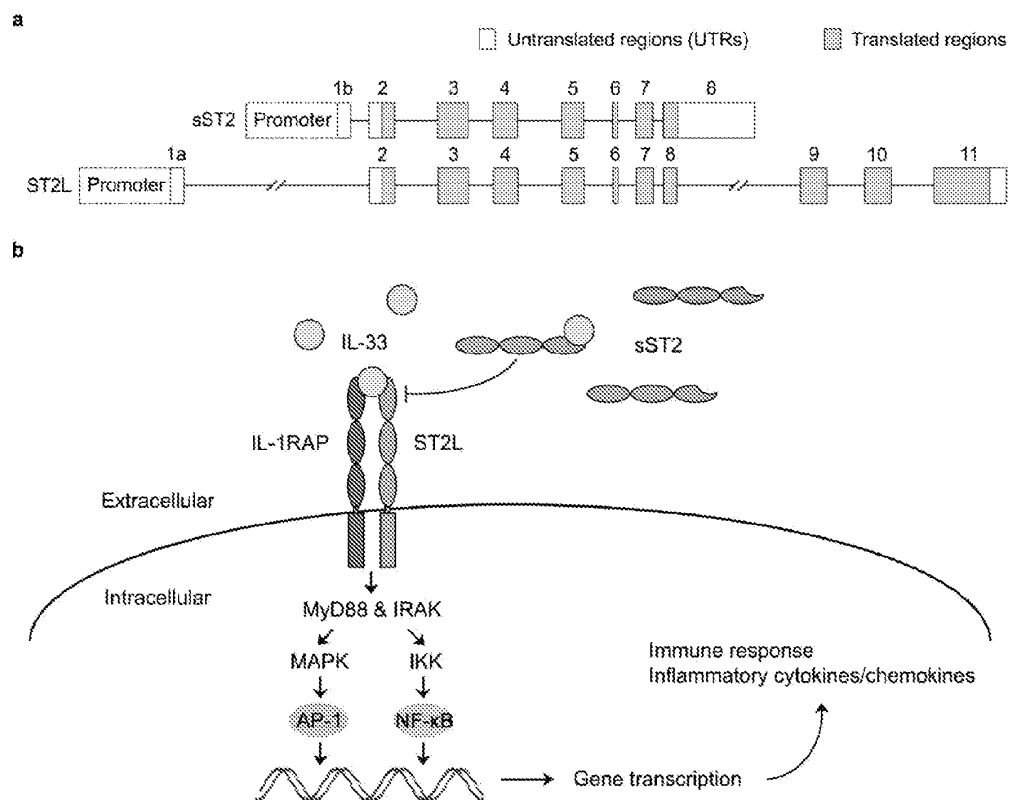
Figure 1

Figure 2

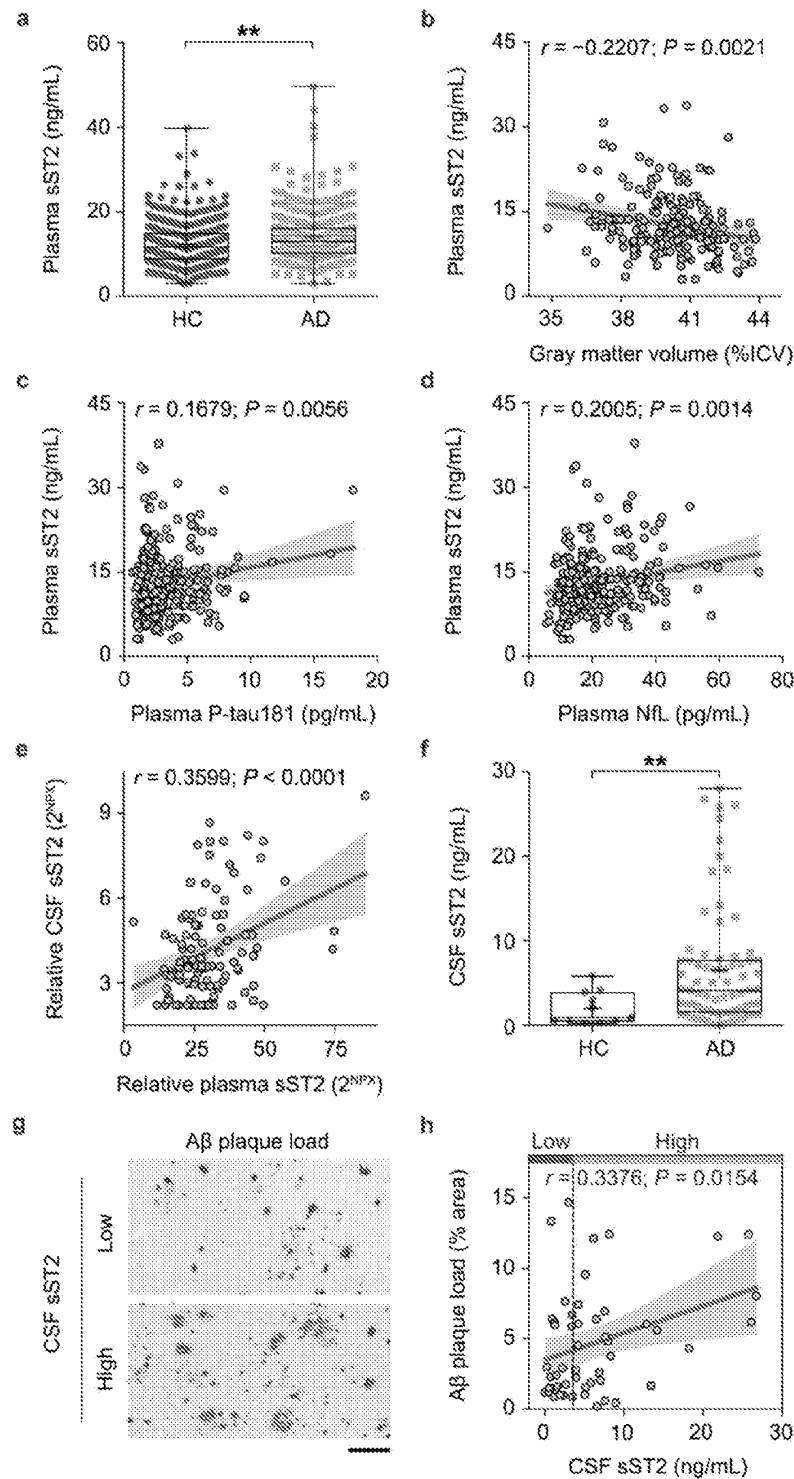


Figure 3

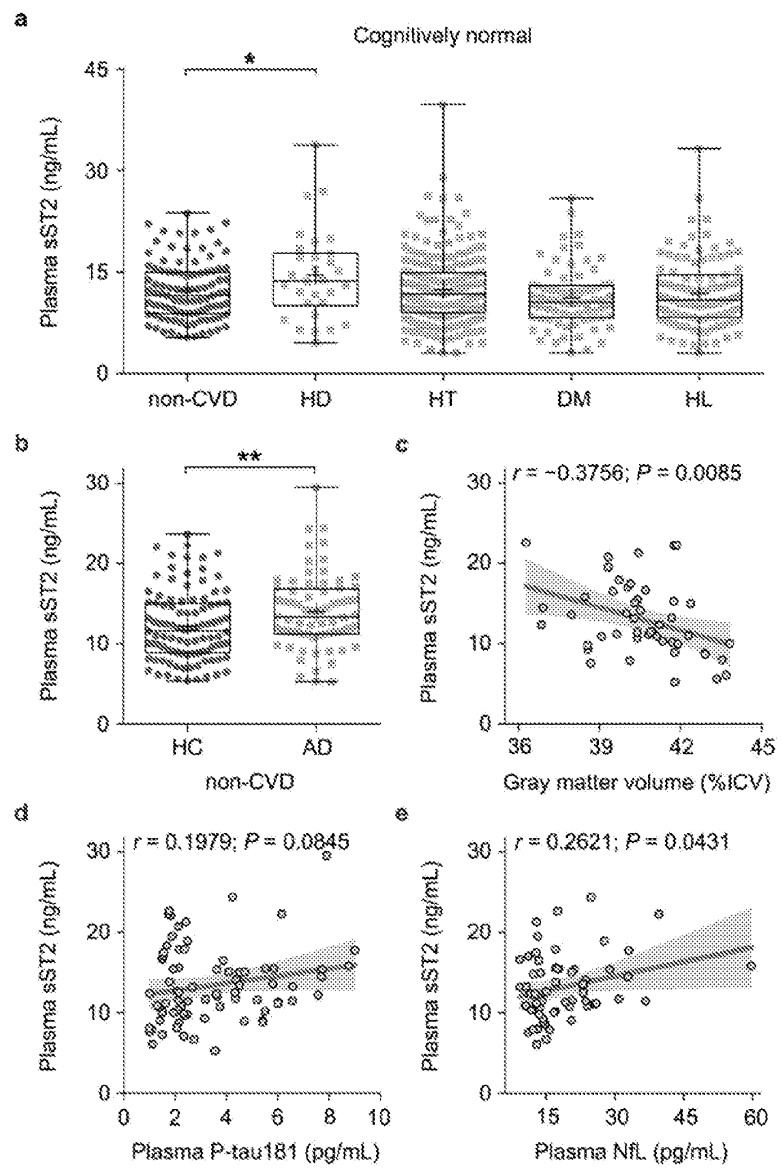


Figure 4

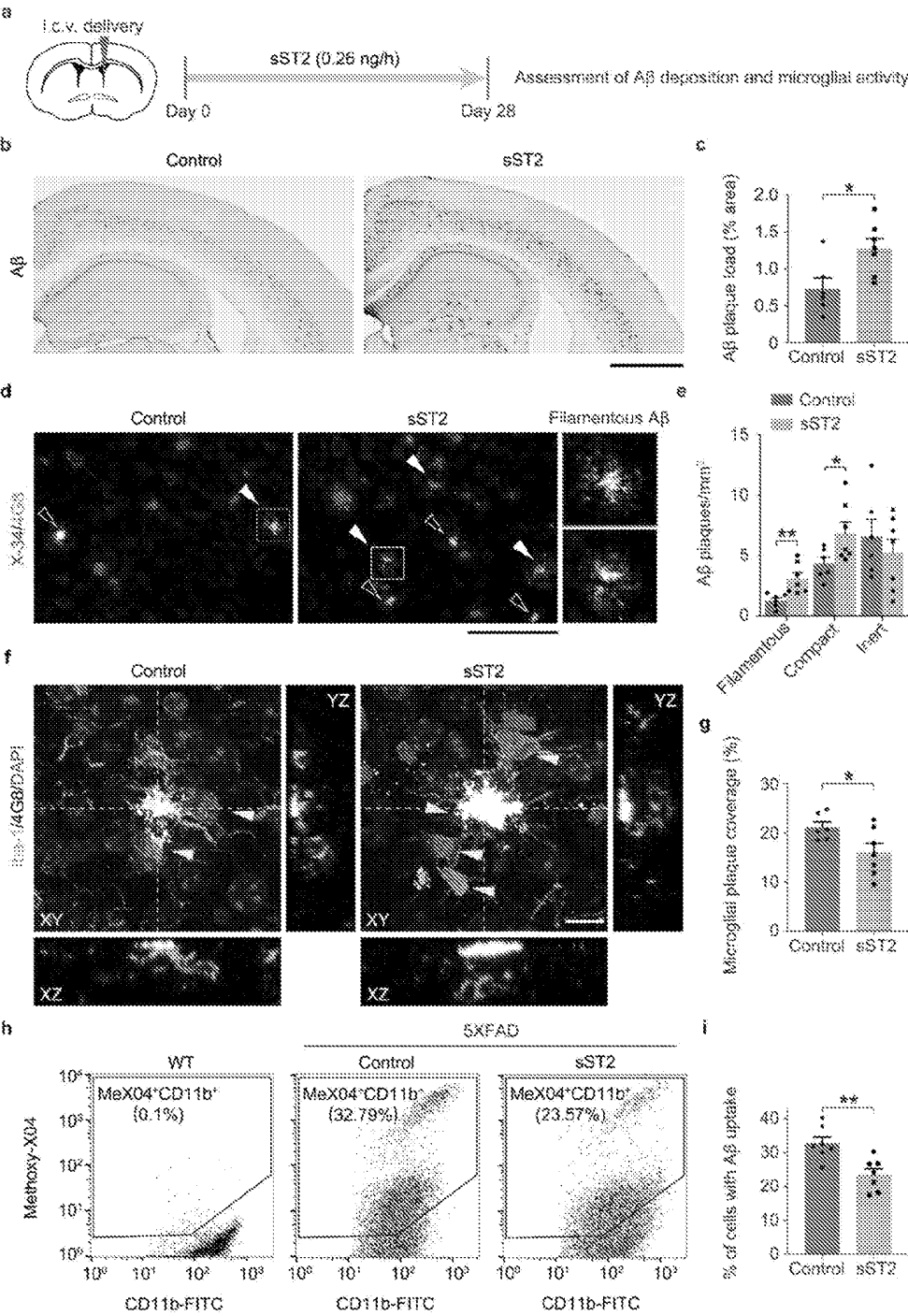


Figure 5

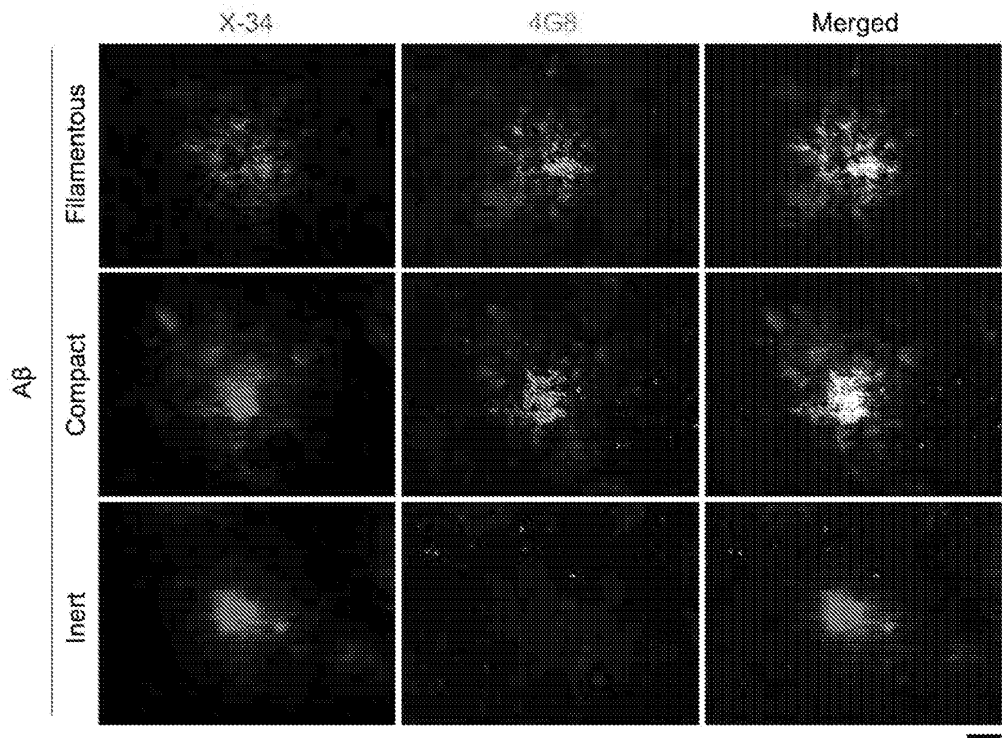


Figure 6

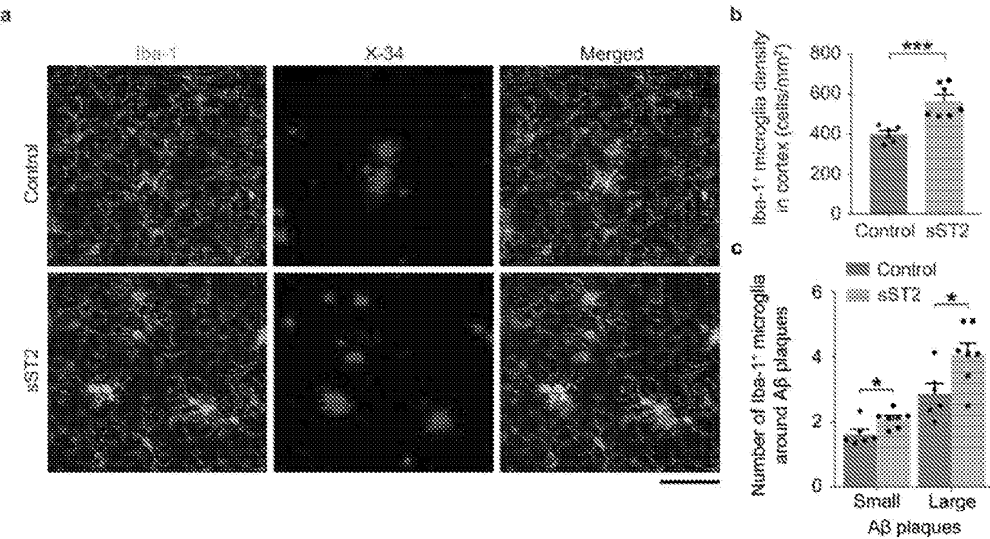


Figure 7

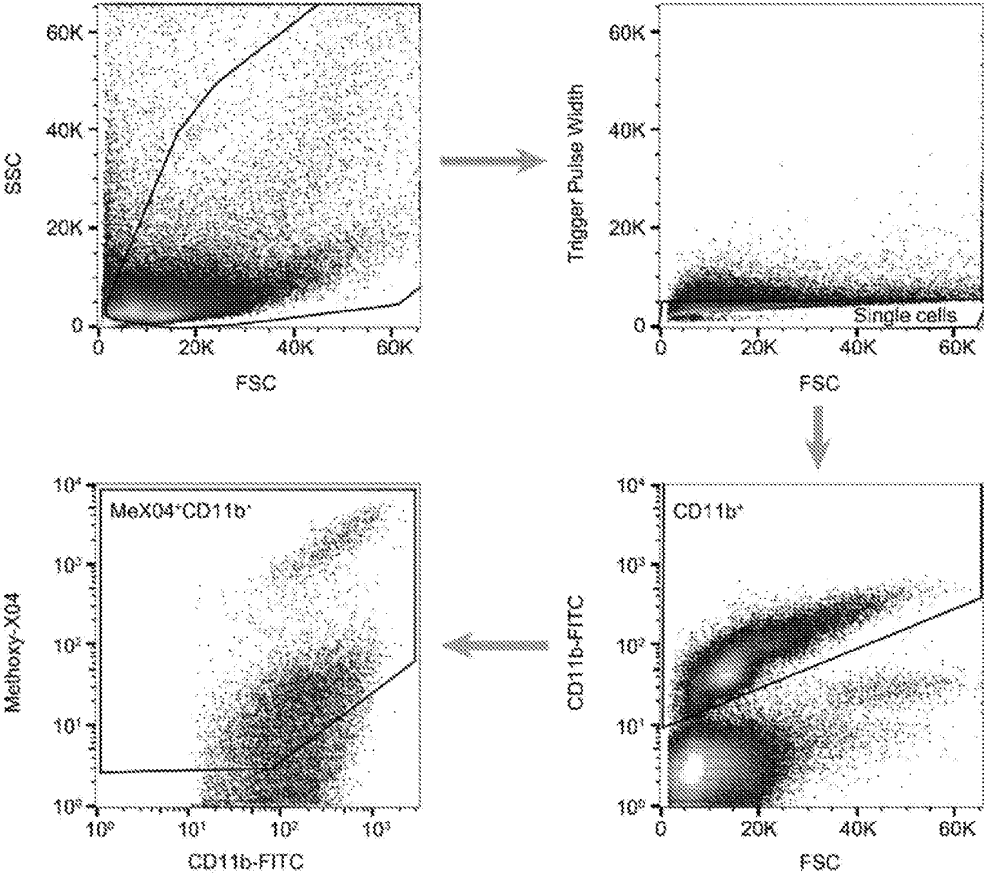


Figure 8

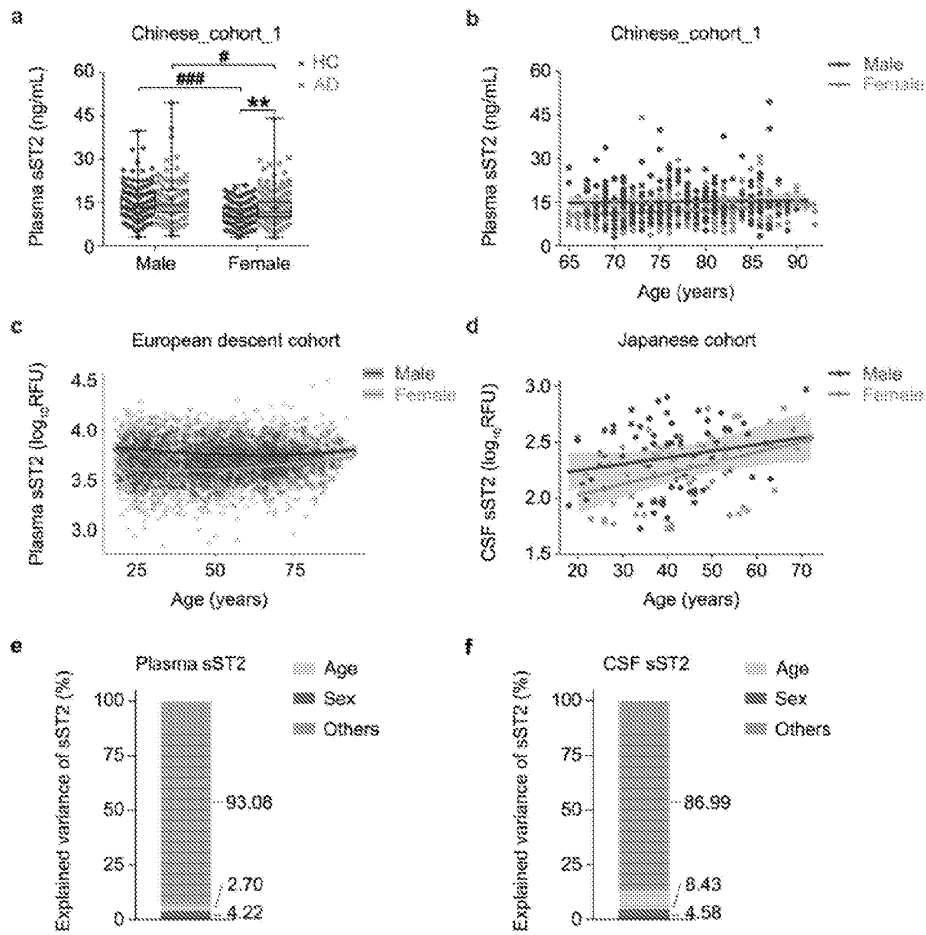


Figure 9

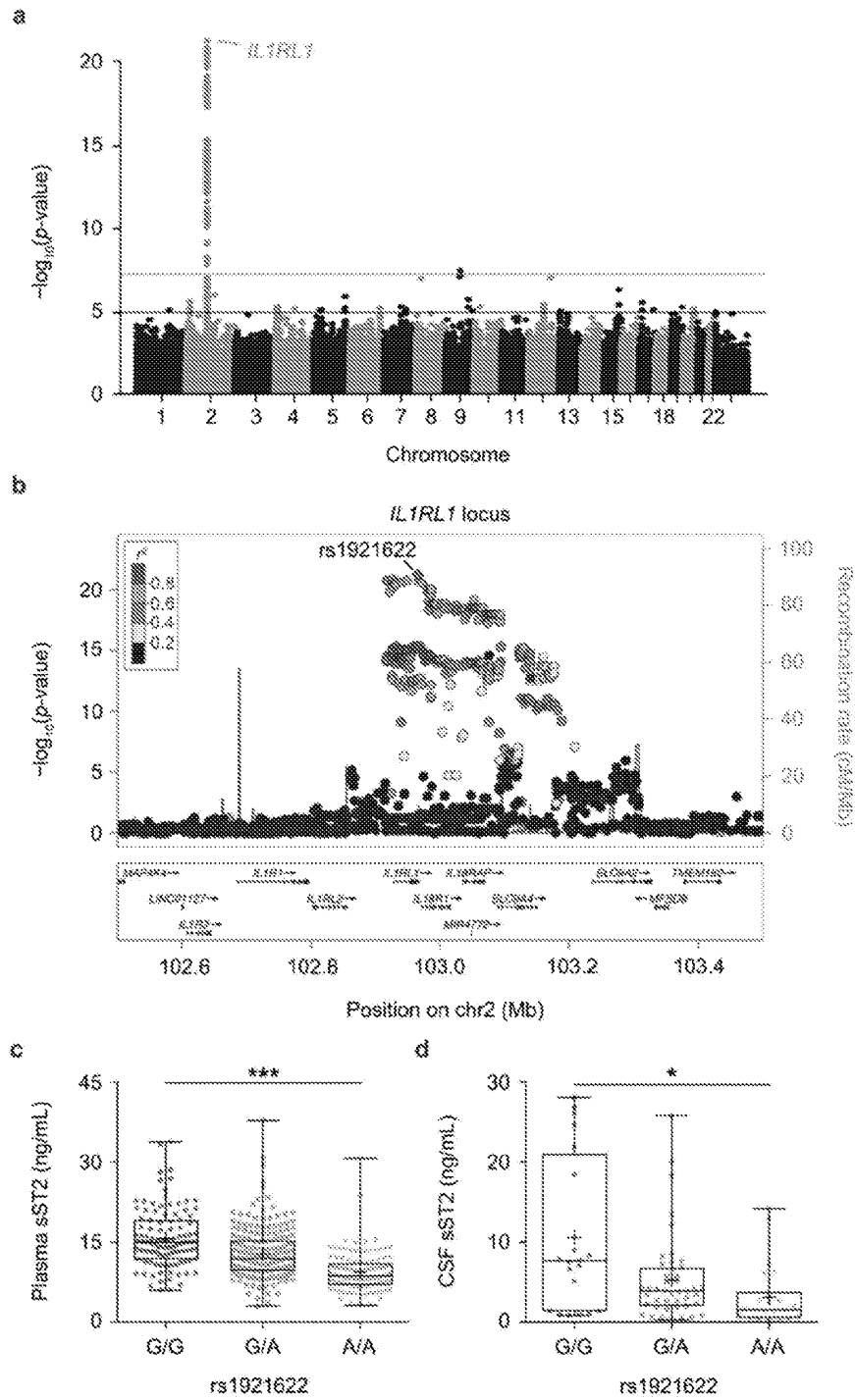


Figure 10

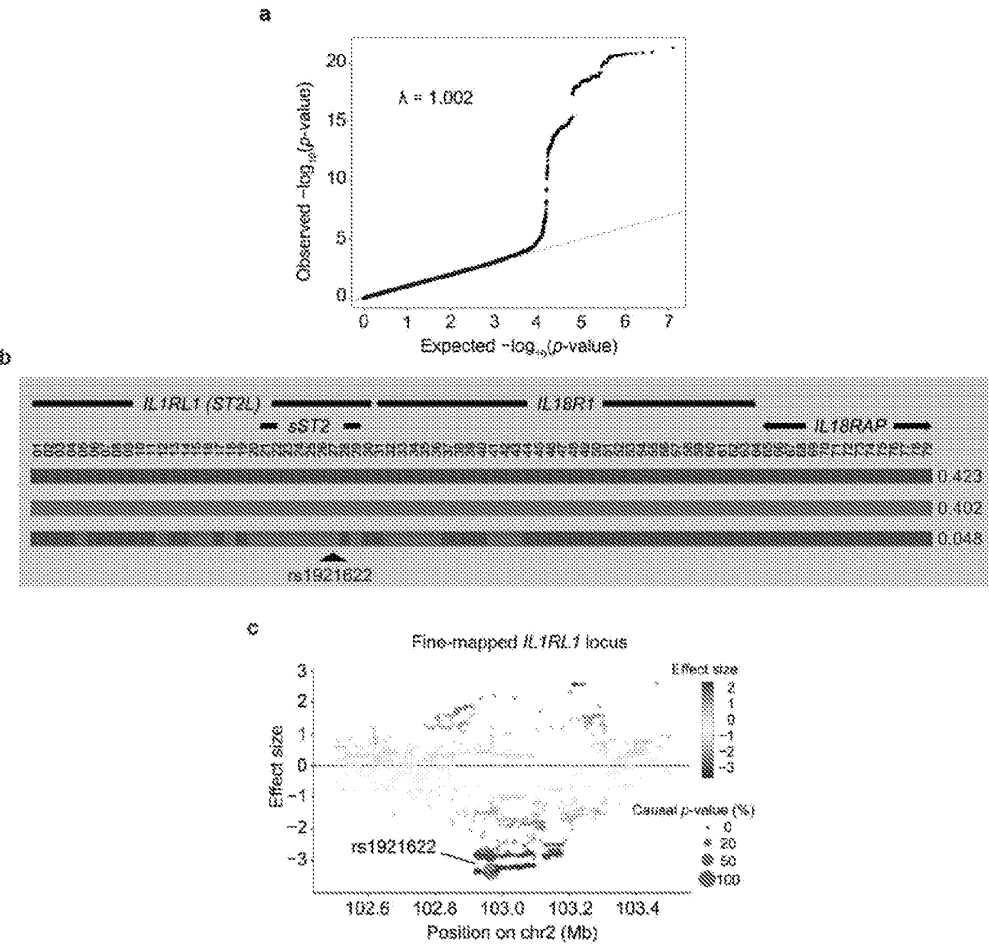


Figure 11

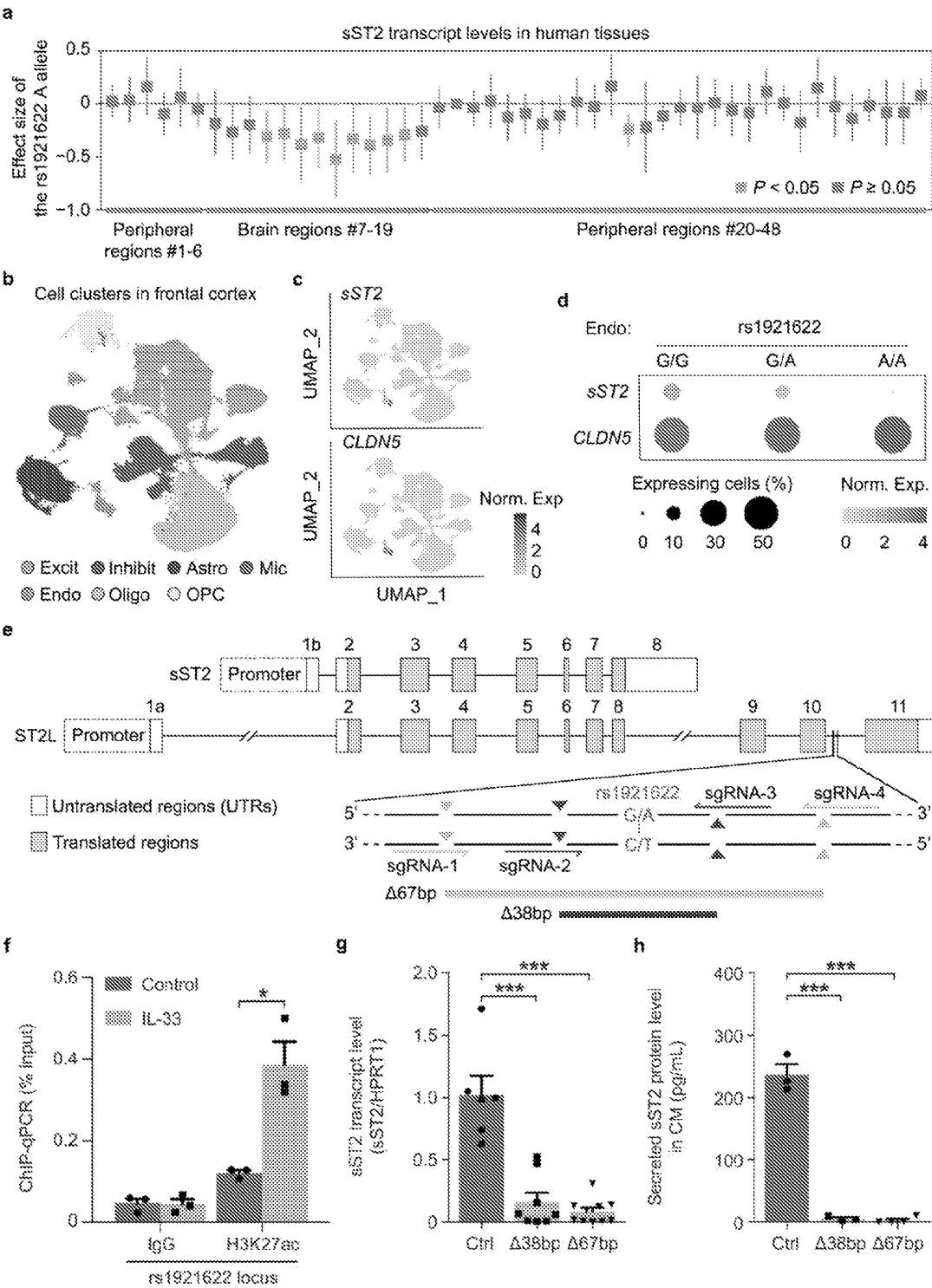


Figure 12

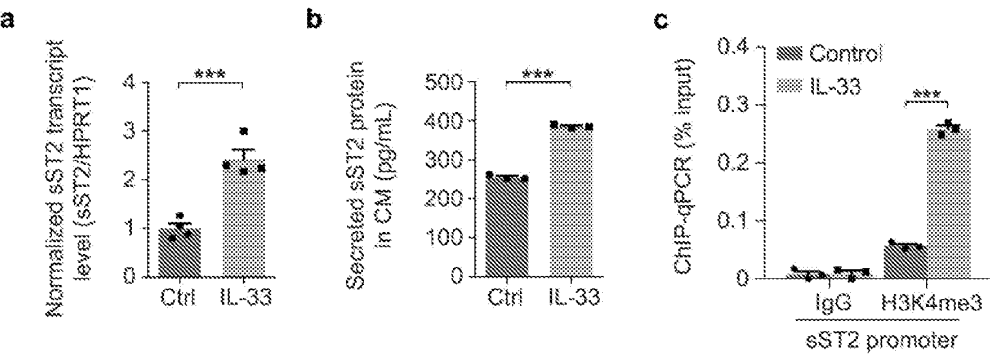


Figure 13

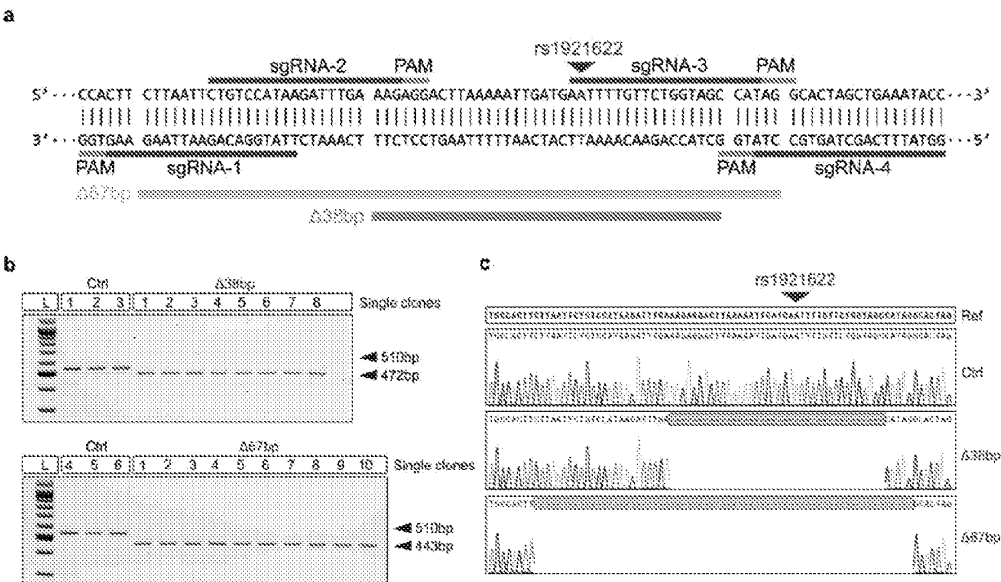
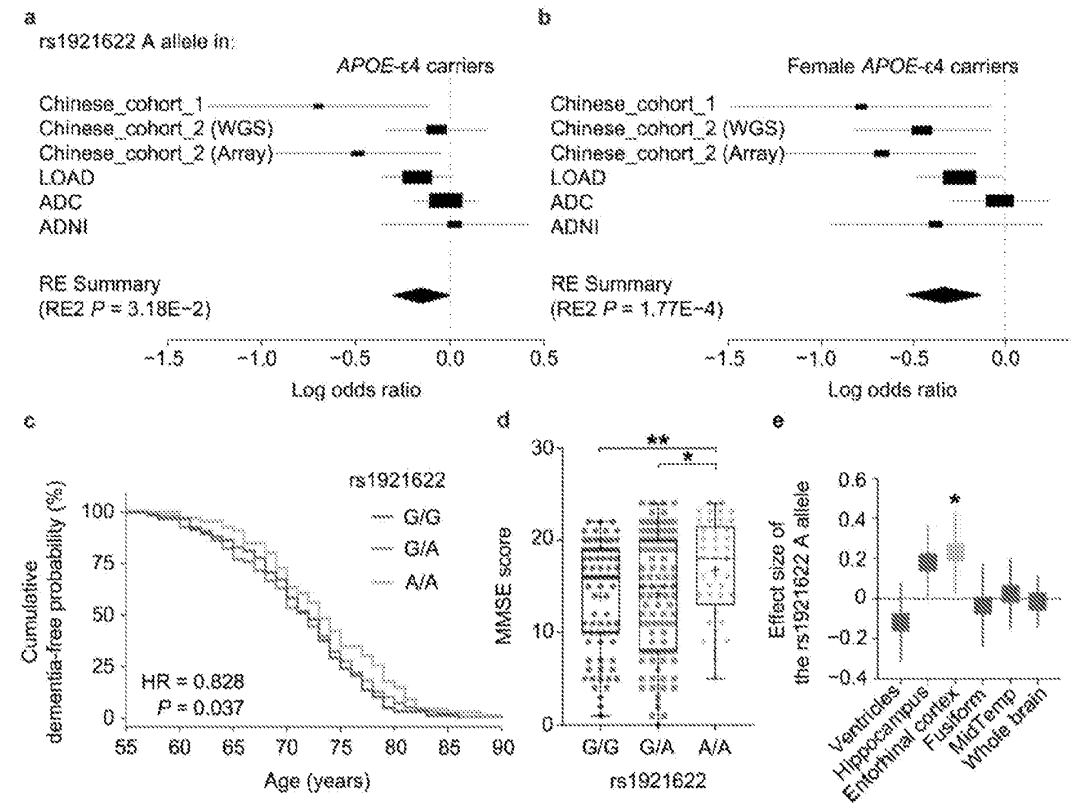


Figure 14

Discovery cohorts:



Replication cohort:

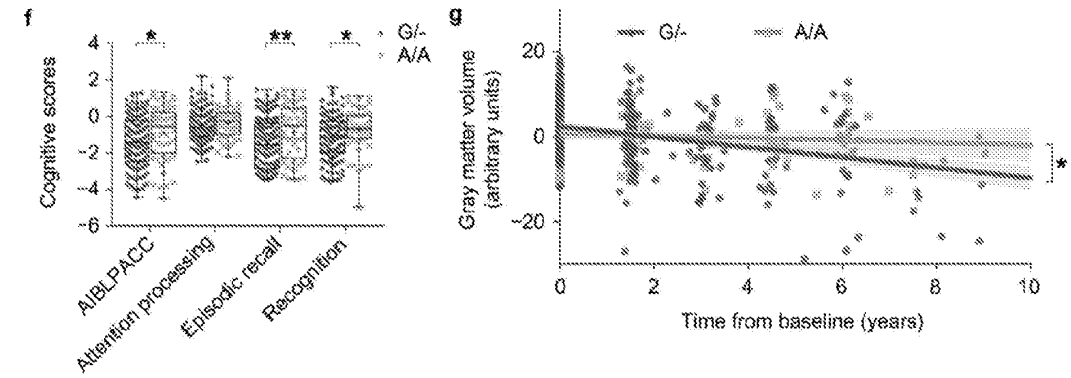


Figure 15

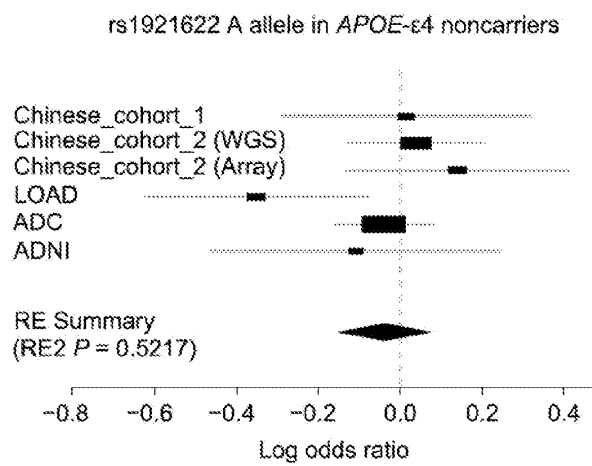


Figure 16

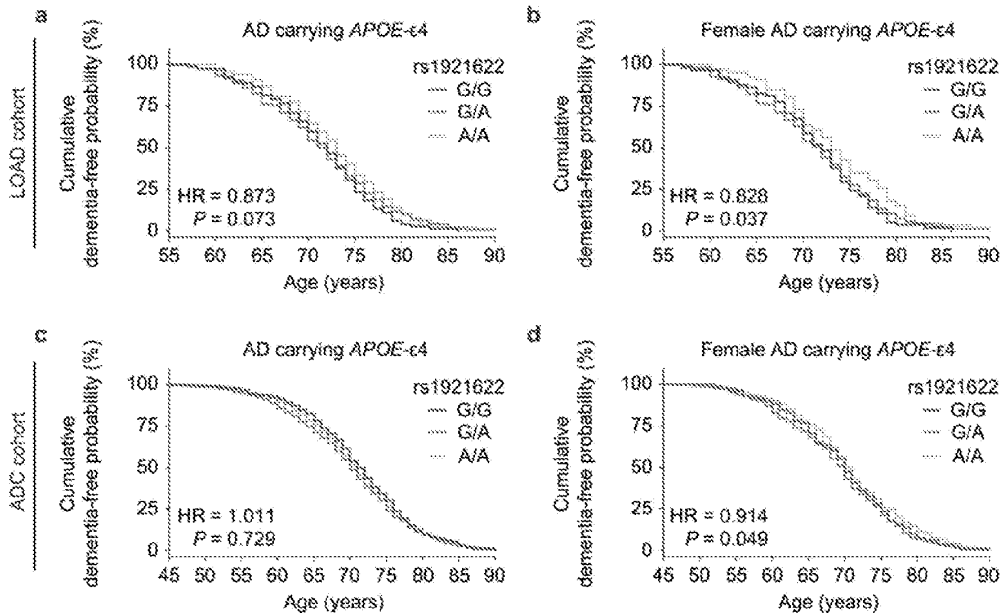


Figure 17

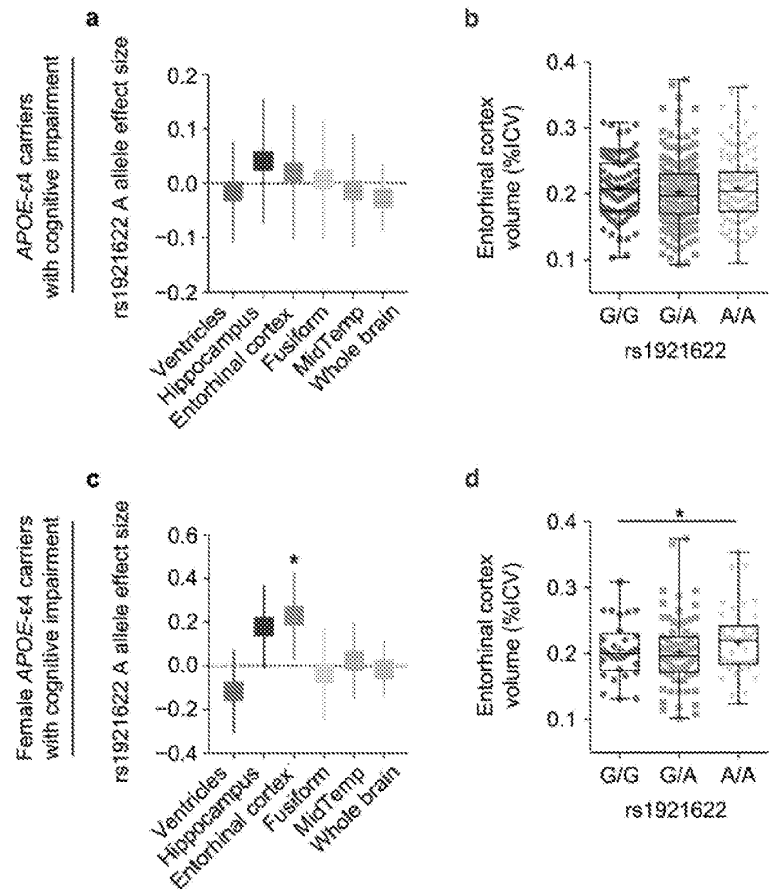


Figure 18

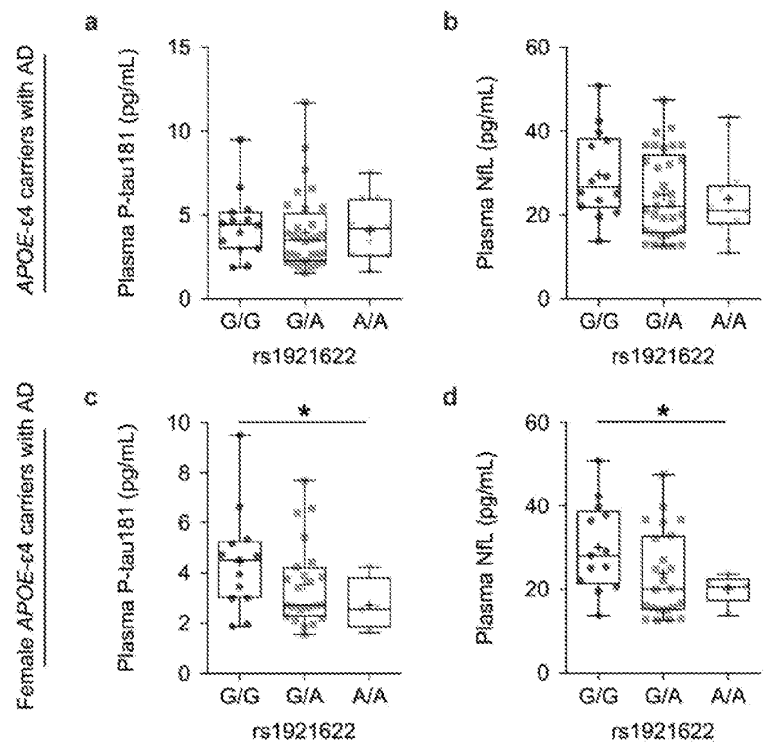


Figure 19

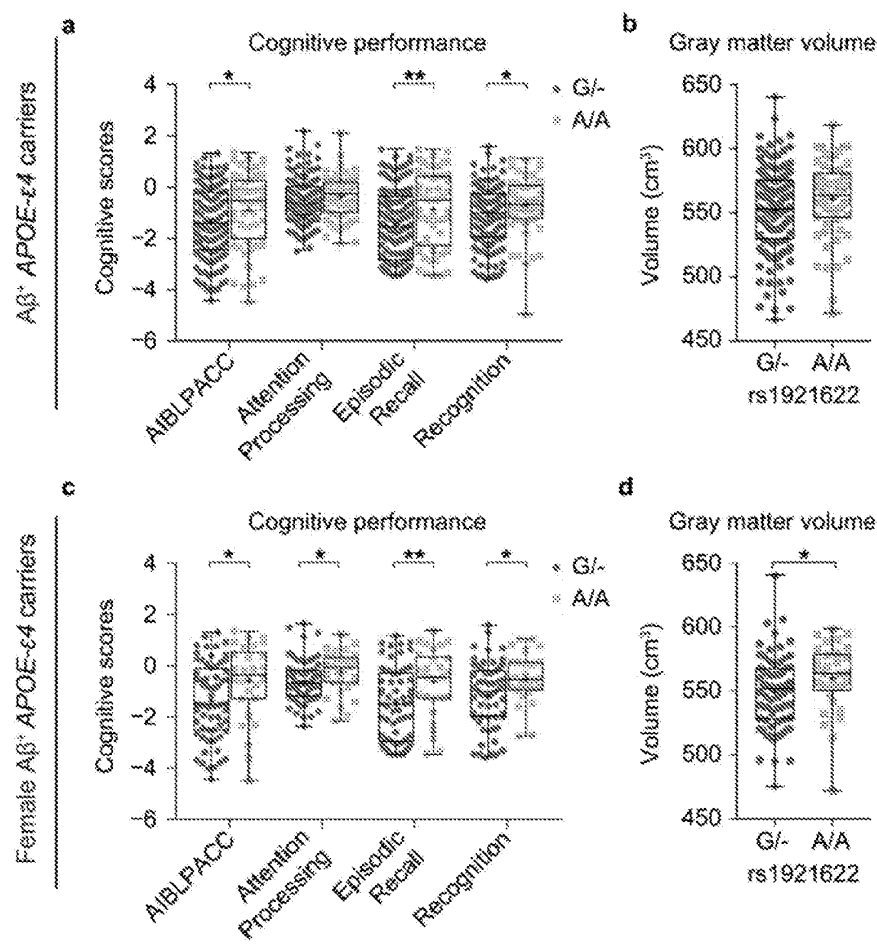


Figure 20

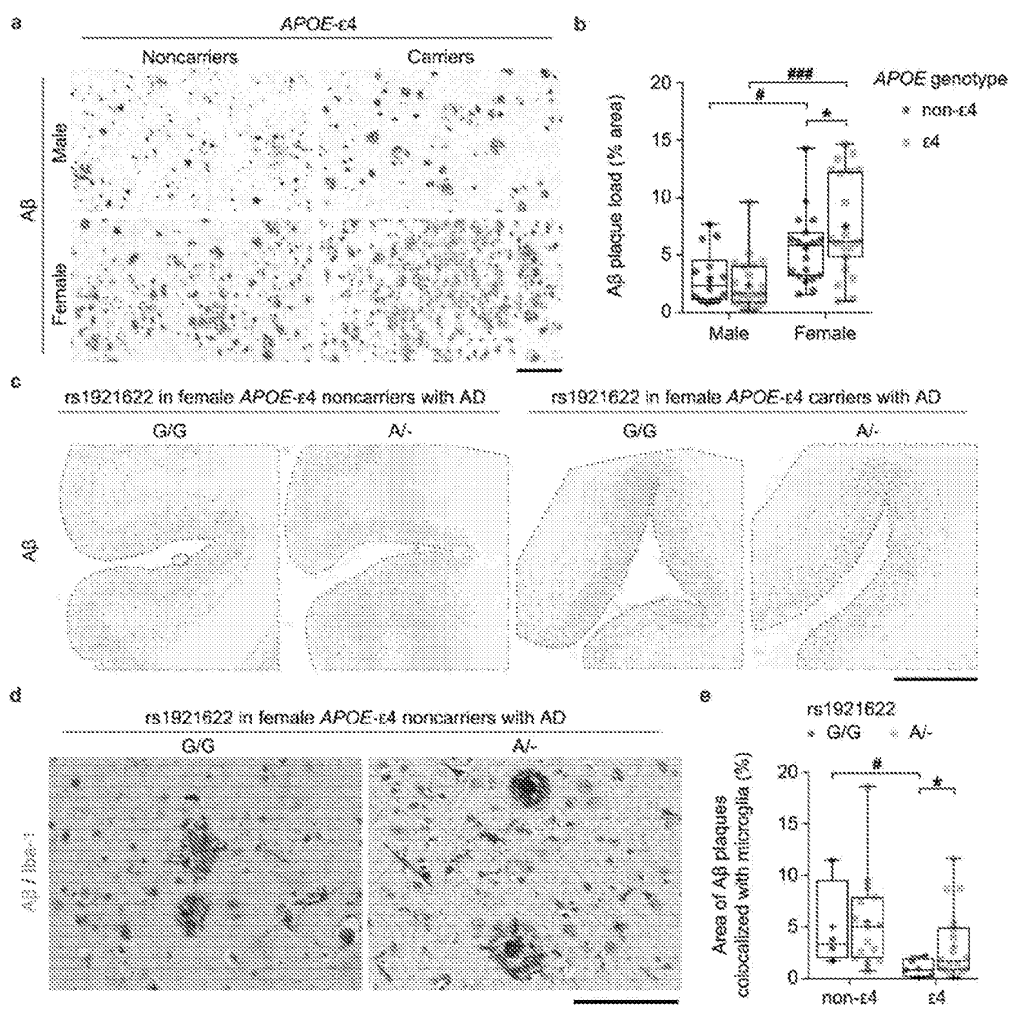


Figure 21

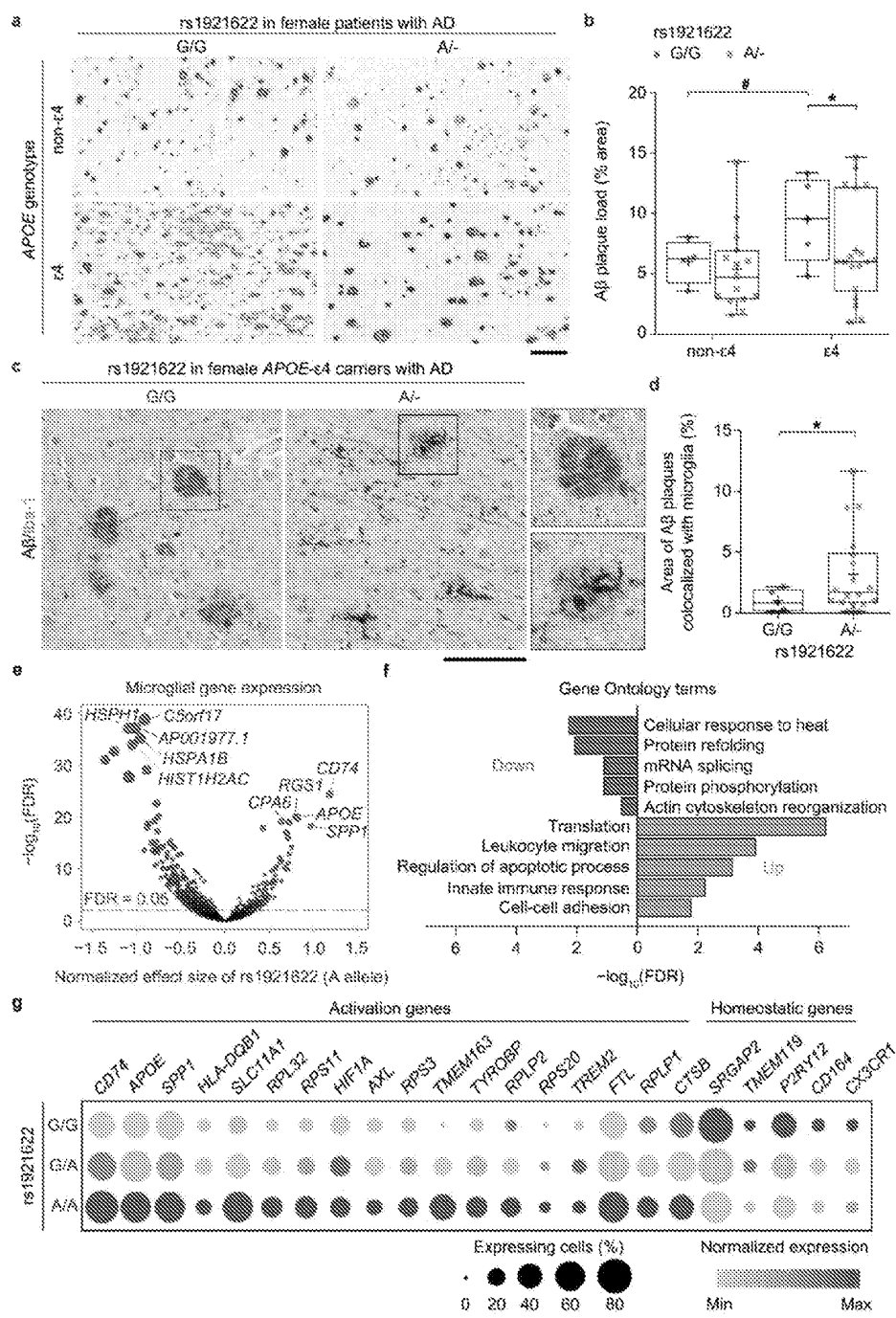


Figure 22

Effect size of CSF sST2 vs. rs1921622 A allele

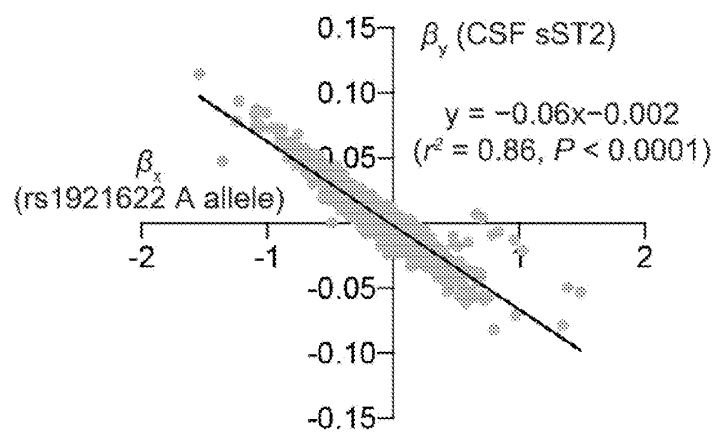


Figure 23

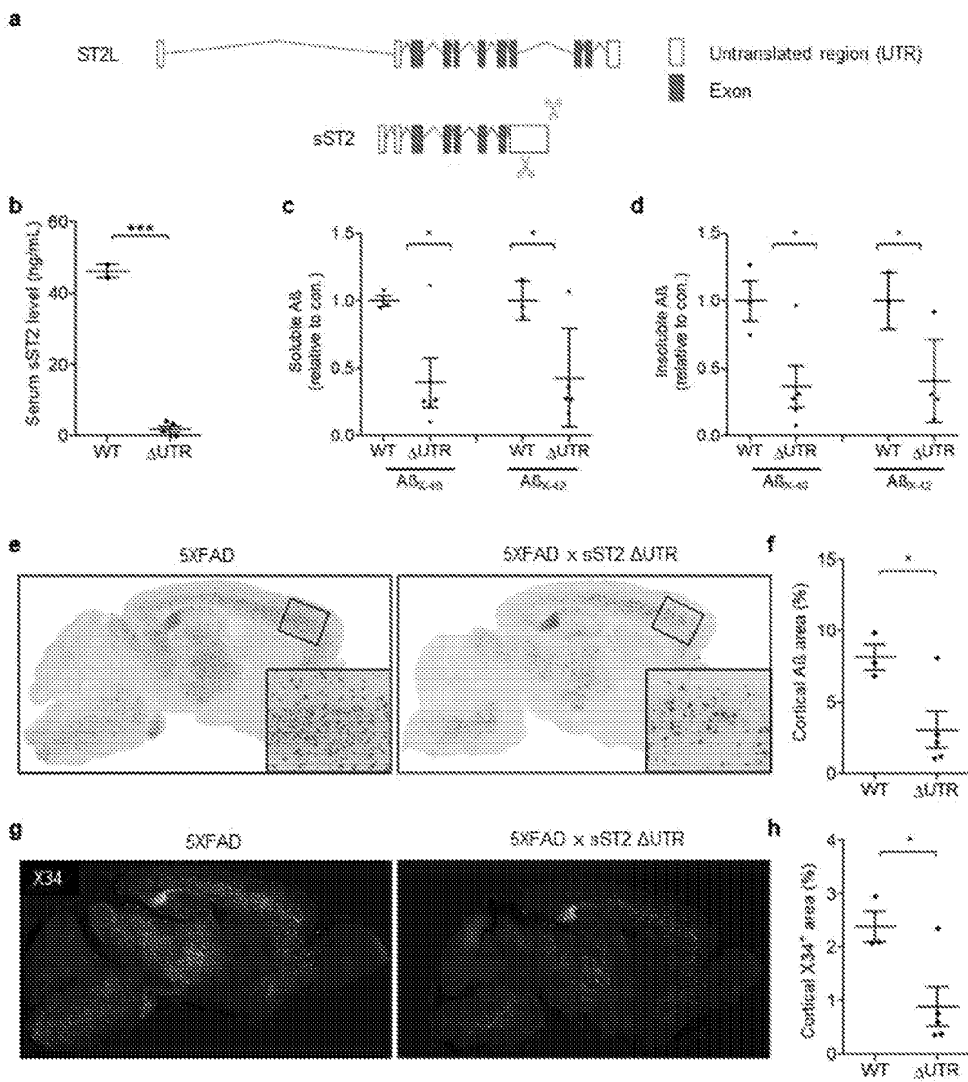


Figure 24

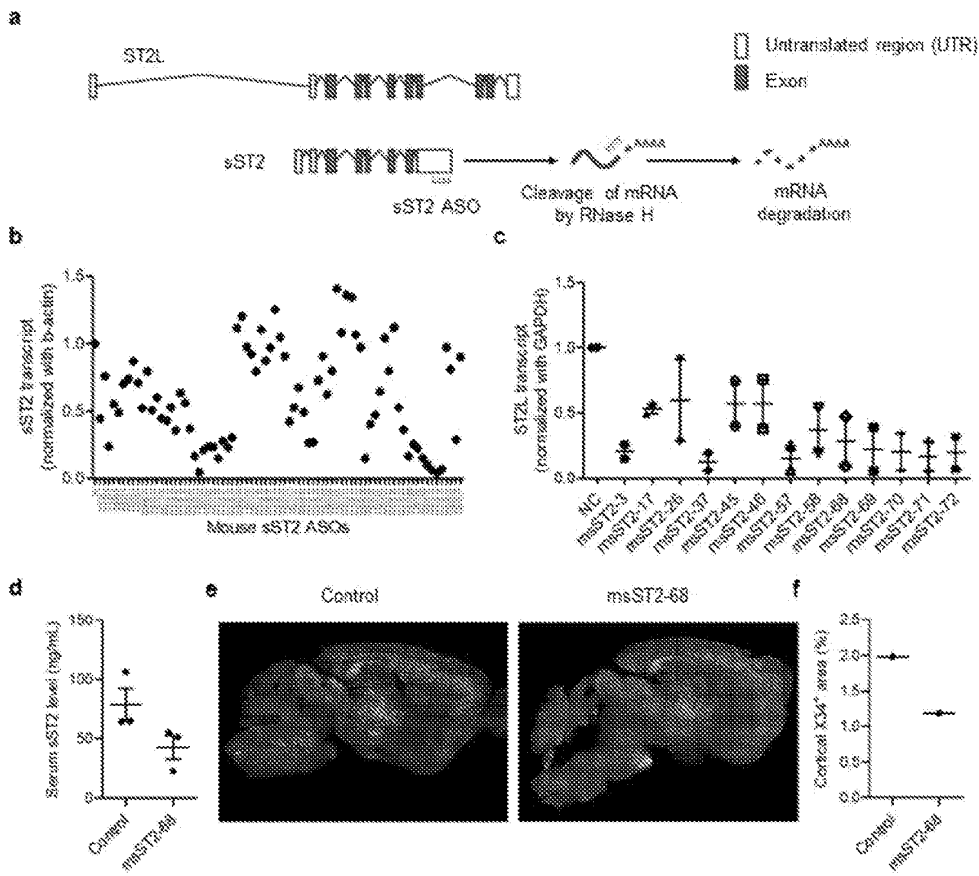


Figure 25

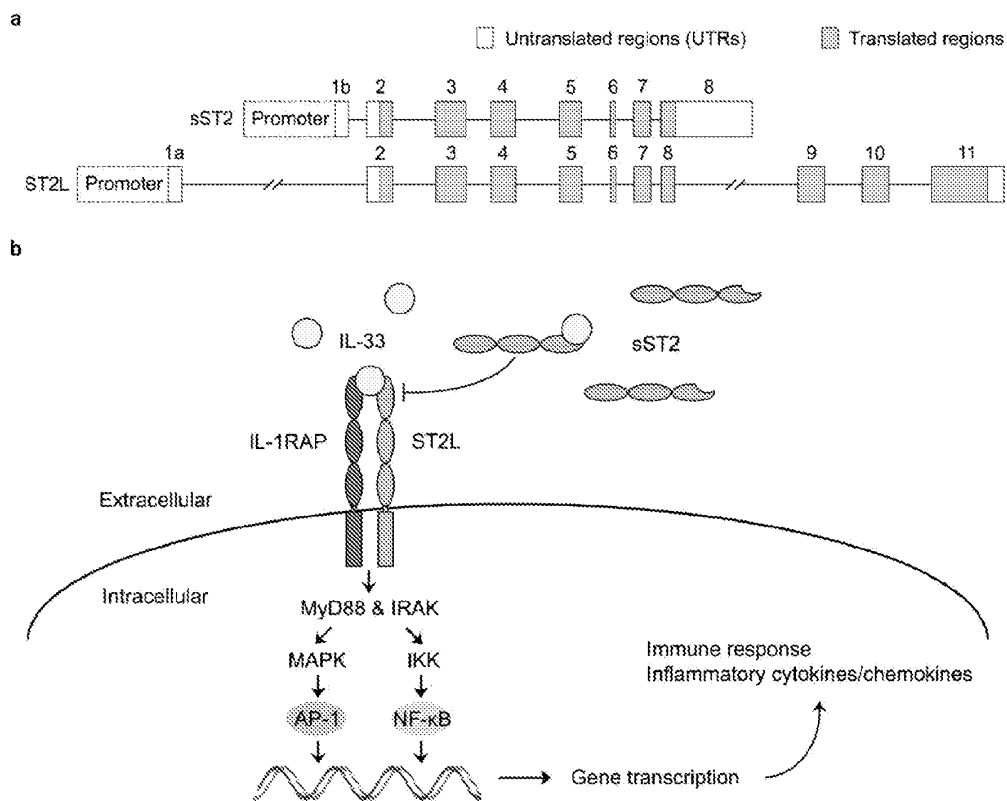


Table 1

#	Tissue type	Tissue subregion	n	sST2 (ENST00000311734.2)*			ST2L (ENST00000233954.1)*		
				Avg. transcript level ^b	β (SE)	P	Avg. transcript level ^b	β (SE)	P
1	Adipose	Visceral (omentum)	213	11.485	0.035 (0.106)	0.741	0.270	-0.087 (0.107)	0.418
2		Subcutaneous	332	8.333	0.023 (0.077)	0.762	-	-	-
3	Adrenal gland	Adrenal gland	148	23.138	0.163 (0.135)	0.228	-	-	-
4	Artery	Aorta	226	3.024	-0.091 (0.098)	0.355	-	-	-
5		Tibial	319	1.168	-0.053 (0.080)	0.508	-	-	-
6		Coronary	124	4.329	0.065 (0.142)	0.647	-	-	-
7	Brain	Anterior cingulate cortex (BA24)	86	3.156	-0.179 (0.153)	0.241	-	-	-
8		Caudate (basal ganglia)	119	2.461	-0.265 (0.135)	0.051	-	-	-
9		Cerebellar hemisphere	104	1.031	-0.194 (0.134)	0.148	-	-	-
10		Cerebellum	121	1.229	-0.309 (0.121)	0.011	-	-	-
11		Cortex	110	2.576	-0.275 (0.135)	0.046	-	-	-
12		Amygdala	69	2.688	-0.388 (0.176)	0.031	-	-	-
13		Frontal Cortex (BA9)	108	2.848	-0.319 (0.143)	0.027	-	-	-
14		Spinal cord (cervical c-1)	67	3.306	-0.521 (0.184)	0.006	-	-	-
15		Hippocampus	92	2.226	-0.327 (0.161)	0.045	-	-	-
16		Nucleus accumbens (basal ganglia)	108	2.317	-0.390 (0.145)	0.008	-	-	-
17		Substantia nigra	64	5.066	-0.344 (0.155)	0.029	-	-	-
18		Putamen (basal ganglia)	91	2.205	-0.290 (0.131)	0.030	-	-	-
19		Hypothalamus	91	3.348	-0.258 (0.142)	0.071	-	-	-
20	Breast	Mammary tissue	193	8.720	-0.036 (0.096)	0.705	-	-	-
21	Cell line	Transformed fibroblasts	273	4.102	-0.034 (0.084)	0.684	-	-	-
22		EBV-transformed lymphocytes	120	-	-	-	-	-	-
23	Colon	Transverse	185	3.311	-0.127 (0.110)	0.249	-	-	-
24		Sigmoid	159	2.043	0.027 (0.122)	0.820	-	-	-
25	Esophagus	Gastroesophageal junction	155	3.690	-0.188 (0.120)	0.120	0.327	-0.056 (0.097)	0.565
26		Muscularis	260	3.059	-0.105 (0.087)	0.230	0.301	0.010 (0.078)	0.900
27		Mucosa	300	1.464	-0.090 (0.092)	0.326	-	-	-
28	Heart	Left ventricle	240	7.199	-0.022 (0.101)	0.824	-	-	-
29		Atrial appendage	194	8.953	0.017 (0.117)	0.885	-	-	-
30	Liver	Liver	120	9.797	0.169 (0.146)	0.251	-	-	-
31	Lung	Lung	331	98.940	-0.239 (0.077)	0.002	1.168	-0.021 (0.074)	0.772
32	Minor salivary gland	Minor salivary gland	65	1.333	-0.219 (0.216)	0.316	-	-	-
33	Muscle	Skeletal muscle	410	0.935	-0.113 (0.068)	0.099	-	-	-
34	Nerve	Tibial nerve	294	2.165	-0.036 (0.084)	0.669	-	-	-
35	Ovary	Ovary	100	0.895	-0.037 (0.152)	0.805	-	-	-
36	Pancreas	Pancreas	175	1.905	0.009 (0.116)	0.937	-	-	-
37	Pituitary	Pituitary	109	4.065	-0.059 (0.126)	0.635	-	-	-
38	Prostate	Prostate	105	3.961	-0.082 (0.137)	0.548	-	-	-
39	Skin	Not sun exposed (suprapubic) skin	239	2.698	0.116 (0.105)	0.269	-	-	-
40		Sun exposed (lower leg) skin	348	3.648	0.006 (0.078)	0.929	-	-	-
41	Small intestine	Terminal ileum	94	4.894	-0.172 (0.147)	0.245	-	-	-
42	Spleen	Spleen	110	0.937	0.153 (0.142)	0.282	-	-	-
43	Stomach	Stomach	189	11.447	-0.025 (0.143)	0.860	-	-	-
44	Testis	Testis	177	0.623	-0.137 (0.111)	0.220	-	-	-
45	Thyroid	Thyroid	322	2.764	-0.013 (0.079)	0.867	-	-	-
46	Uterus	Uterus	83	1.698	-0.081 (0.155)	0.617	-	-	-

#	Tissue type	Tissue subregion	<i>n</i>	sST2 (ENST00000311734.2) ^a			ST2L (ENST00000233954.1) ^a		
				Avg. transcript level ^b	β (SE)	<i>P</i>	Avg. transcript level ^b	β (SE)	<i>P</i>
47	Vagina	Vagina	90	2.105	-0.080 (0.146)	0.584	-	-	-
48	Whole blood	Whole blood	403	1.858	0.081 (0.076)	0.286	-	-	-

Table 2

		Healthy control	AD
Sample size (<i>n</i>)		345	345
Basic information	Age, years (SD)	73.12 (4.71)	80.53 (5.96)
	Sex, male (%)	140 (40.58%)	110 (31.88%)
	Education level, years (SD)	8.16 (5.06)	4.85 (4.70)
	MoCA score (SD)	23.62 (3.31)	12.61 (5.42)
	<i>APOE</i> - ϵ 4, allele frequency	7.97%	19.71%
	<i>APOE</i> - ϵ 2, allele frequency	10.43%	5.07%
CVD records	Heart disease (%)	30 (8.70%)	57 (16.52%)
	Hypertension (%)	211 (61.16%)	207 (60.00%)
	Diabetes Mellitus (%)	76 (22.03%)	106 (30.72%)
	Hyperlipidemia (%)	104 (30.14%)	146 (42.32%)
	No CVDs (%)	97 (28.12%)	86 (24.93%)
Data available (<i>n</i>)	Plasma sST2 (mean level)	336 (12.30 ng/mL)	277 (14.09 ng/mL)
	Plasma P-tau181 (mean level)	134 (2.35 pg/mL)	156 (4.10 pg/mL)
	Plasma NfL (mean level)	135 (16.19 pg/mL)	154 (29.12 pg/mL)
	Gray matter MRI (mean %ICV)	115 (40.75%)	77 (39.44%)
	Genotypes (WGS)	194	233
	Genotypes (<i>APOE</i> - ϵ 2, <i>APOE</i> - ϵ 4, rs1921622 array)	151	112

Table 3

		Healthy control	AD
Sample size (<i>n</i>)		11	102
Basic information	Age, years (SD)	89.82 (4.98)	79.96 (9.89)
	Sex, male (%)	4 (36.36%)	55 (53.92%)
	PMD, hours (SD)	22.77 (6.55)	26.15 (18.00)
	<i>APOE</i> - ϵ 4, allele frequency	9.09%	38.24%
	<i>APOE</i> - ϵ 2, allele frequency	18.18%	4.41%
Data available (<i>n</i>)	CSF sST2 (mean level)	11 (2.01 ng/mL)	75 (6.55 ng/mL)
	Prefrontal cortex slice for staining	11	78
	Single-nuclei RNA-seq	9	12
	Genotypes (<i>APOE</i> - ϵ 2, <i>APOE</i> - ϵ 4, rs1921622 array)	11	102

Table 4

POS	SNP	Effective Allele	Estimate	Stat	p-value
1:163472218	rs75687525	C	2.38	4.55	7.14E-06
10:27968343	rs1907370	T	2.59	4.65	4.37E-06
12:107400417	rs66994203	G	3.62	5.45	8.68E-08
12:74877668	rs35957931	A	2.33	4.57	6.47E-06
12:74879965	rs1824539	T	2.34	4.54	7.27E-06
12:74889088	rs77474403	G	2.34	4.54	7.27E-06
12:74891319	rs7300059	G	2.38	4.6	5.52E-06
12:74892234	rs7304361	G	2.43	4.63	4.81E-06
12:74900231	rs202095841	A	2.42	4.67	4.09E-06
12:74901707	rs147414753	T	2.34	4.54	7.27E-06
12:74902303	rs12821034	G	2.36	4.53	7.82E-06
12:74902947	rs36153793	C	2.34	4.54	7.27E-06
12:74908207	rs7962722	T	2.34	4.54	7.27E-06
12:74910670	rs12816163	T	2.34	4.54	7.27E-06
12:74914614	rs4547177	C	2.34	4.54	7.27E-06
12:74914810	rs2365919	G	2.34	4.54	7.27E-06
12:74915296	rs35454023	A	2.34	4.54	7.27E-06
12:74915984	rs58783285	T	2.34	4.54	7.27E-06
12:74917553	rs1826588	A	2.34	4.54	7.27E-06
12:74920470	rs1493810	G	2.34	4.54	7.27E-06
12:74922159	rs34852307	G	2.33	4.49	9.31E-06
12:74922723	rs2605342	T	-2.34	-4.54	7.27E-06
12:74923340	rs2605340	A	-2.34	-4.54	7.27E-06
12:74923633	rs12821741	G	2.34	4.54	7.27E-06
12:74924552	rs1493801	C	2.34	4.54	7.27E-06
12:74925689	rs1461045	T	-2.34	-4.54	7.27E-06
12:74926002	rs1493800	T	2.34	4.54	7.27E-06
12:74926682	rs17113674	C	2.34	4.54	7.27E-06
12:74926988	rs17113675	T	2.34	4.54	7.27E-06
12:74927228	rs17113679	A	2.34	4.54	7.27E-06
12:74927335	rs60905363	C	2.34	4.54	7.27E-06
12:74928312	rs34706013	A	2.34	4.54	7.27E-06
12:74929829	rs2126136	T	2.34	4.54	7.27E-06
12:74929925	rs2605381	G	-2.34	-4.54	7.27E-06
12:74930524	rs12832045	A	2.34	4.54	7.27E-06
12:74931349	rs1493796	G	2.34	4.54	7.27E-06
12:74932159	rs590352	C	-2.34	-4.54	7.27E-06
12:74947219	rs11615704	T	2.43	4.72	3.17E-06
13:24695615	rs117523785	G	3.47	4.52	8.23E-06
15:91664657	rs17641976	A	4.28	5.14	4.21E-07

POS	SNP	Effective Allele	Estimate	Stat	p-value
15:91665392	rs17515887	C	3.87	4.71	3.35E-06
17:13640730	rs7208104	C	-2.18	-4.78	2.46E-06
17:13645480	rs8081904	G	-2.09	-4.55	7.10E-06
17:70243206	rs12600563	T	2.43	4.56	6.74E-06
19:54170960	rs142226688	A	3.5	4.64	4.72E-06
2:102863095	rs56238602	T	1.77	4.56	6.63E-06
2:102917234	rs1420091	C	-2.78	-8.07	7.52E-15
2:102917788	rs4399750	C	-2.86	-8.17	3.75E-15
2:102918018	rs4577297	A	-3.38	-10.08	1.59E-21
2:102918601	rs2110660	G	-2.86	-8.21	2.74E-15
2:102919305	rs1420090	C	-2.82	-8.07	7.80E-15
2:102919426	rs7565653	A	-2.82	-8.1	6.36E-15
2:102920037	rs7568913	C	-3.33	-10.06	1.78E-21
2:102921783	rs10179654	G	-3.27	-9.8	1.53E-20
2:102922987	rs4090473	G	-2.85	-8.22	2.57E-15
2:102924549	rs12476925	T	-2.85	-8.22	2.57E-15
2:102924662	rs12476968	T	-2.85	-8.22	2.57E-15
2:102924947	rs7562254	C	-3.33	-10.02	2.56E-21
2:102925223	rs56224165	T	-2.72	-7.63	1.65E-13
2:102925790	rs4851564	C	-2.73	-7.69	1.10E-13
2:102926320	rs6721346	C	-2.82	-8.15	4.40E-15
2:102926362	rs12470864	A	-2.88	-8.4	7.15E-16
2:102926366	rs12470867	A	-2.7	-7.56	2.55E-13
2:102926511	rs10178436	C	-3.31	-9.94	5.03E-21
2:102926800	rs11679191	T	-2.82	-8.15	4.40E-15
2:102926981	rs11685424	A	-2.82	-8.15	4.40E-15
2:102927086	rs11685480	A	-2.82	-8.15	4.40E-15
2:102927641	rs6543115	G	-3.35	-10.05	2.03E-21
2:102927726	rs6543116	G	-3.38	-10.11	1.27E-21
2:102929012	rs6733174	C	-2.79	-8.04	9.39E-15
2:102929469	rs6543118	A	-3.35	-10.03	2.46E-21
2:102930147	rs1558622	A	-2.86	-8.21	2.77E-15
2:102930307	rs1558621	G	-2.85	-8.23	2.41E-15
2:102930380	rs10189202	G	-2.86	-8.21	2.77E-15
2:102930657	rs10191914	C	-2.86	-8.21	2.77E-15
2:102930881	rs10189711	G	-2.9	-8.36	9.65E-16
2:102930948	rs12712135	G	-3.35	-10.03	2.46E-21
2:102931395	rs1558620	C	-2.86	-8.21	2.77E-15
2:102931550	rs1558619	T	-2.81	-8.08	7.12E-15
2:102931802	rs12996505	G	-3.34	-9.99	3.32E-21
2:102931826	rs13020553	G	-2.91	-8.46	4.75E-16

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:102931926	rs13020793	T	-2.86	-8.21	2.77E-15
2:102932247	rs10183388	T	-3.34	-9.99	3.32E-21
2:102932293	rs953934	T	-3.34	-9.99	3.32E-21
2:102932562	rs950880	A	-2.91	-8.46	4.75E-16
2:102933552	rs1968171	T	-2.86	-8.21	2.77E-15
2:102933758	rs4613307	G	-2.84	-8.11	5.83E-15
2:102933802	rs1968170	A	-2.78	-8	1.26E-14
2:102935237	rs11123918	C	-2.86	-8.21	2.77E-15
2:102935805	rs10182639	A	-2.86	-8.21	2.77E-15
2:102935974	rs11693204	A	-2.67	-7.48	4.54E-13
2:102936131	rs11690443	A	-2.86	-8.18	3.47E-15
2:102936366	rs12712136	C	-2.86	-8.18	3.47E-15
2:102936981	rs974389	A	-2.86	-8.18	3.47E-15
2:102937482	rs4142132	A	-2.86	-8.18	3.47E-15
2:102938335	rs971764	T	-2.86	-8.18	3.47E-15
2:102939036	rs13001325	T	-2.89	-8.39	7.72E-16
2:102939434	rs1420088	C	-2.86	-8.18	3.47E-15
2:102939709	rs66780767	T	-2.23	-6.3	7.74E-10
2:102939754	rs11123919	A	-2.91	-8.36	9.17E-16
2:102939833	rs11123920	T	-2.85	-8.16	4.07E-15
2:102940412	rs6706844	C	-2.83	-8.12	5.50E-15
2:102940999	rs11674832	G	-2.82	-8.04	9.36E-15
2:102941009	rs11679889	A	-2.65	-7.39	8.11E-13
2:102941019	rs11675988	C	-2.82	-8.04	9.36E-15
2:102941074	rs11679900	T	-2.82	-8.04	9.36E-15
2:102941215	rs11676075	C	-2.82	-8.04	9.36E-15
2:102941338	rs11676124	C	-2.85	-8.11	5.89E-15
2:102941561	rs11123921	G	-2.86	-8.18	3.47E-15
2:102941715	rs12992762	C	-2.86	-8.18	3.47E-15
2:102941818	rs12998412	C	-2.86	-8.18	3.47E-15
2:102941918	rs9750771	A	-3.38	-10.04	2.22E-21
2:102942187	rs11123922	C	-2.86	-8.18	3.47E-15
2:102942537	rs12053422	A	-2.86	-8.18	3.47E-15
2:102942920	rs58933240	C	-2.84	-8.13	5.09E-15
2:102942921	rs56403447	C	-2.84	-8.13	5.09E-15
2:102942939	rs13005688	C	-2.85	-8.16	4.02E-15
2:102943386	rs12725988	T	-2.84	-8.13	5.09E-15
2:102943822	rs4490207	G	-2.86	-8.18	3.47E-15
2:102943844	rs4455171	T	-2.86	-8.18	3.47E-15
2:102943883	rs13007344	C	-2.86	-8.18	3.47E-15
2:102944191	rs141508079	G	-2.11	-5.11	4.86E-07

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:102945241	rs76520363	A	-2.86	-8.18	3.47E-15
2:102945378	rs76278109	G	-2.86	-8.18	3.47E-15
2:102945416	rs76886731	T	-2.86	-8.18	3.47E-15
2:102945755	rs150341880	T	-2.83	-8.11	5.62E-15
2:102946082	rs75392560	G	-2.8	-7.98	1.46E-14
2:102946111	rs76498201	G	-2.84	-8.07	7.84E-15
2:102946677	rs56192435	G	-2.71	-7.55	2.76E-13
2:102947201	rs12996772	T	-2.86	-8.18	3.47E-15
2:102948470	rs1420104	A	-2.89	-8.39	7.72E-16
2:102948632	rs1420103	C	-3.41	-10.09	1.47E-21
2:102948819	rs1420102	T	-2.86	-8.18	3.47E-15
2:102948939	rs12466380	G	-2.81	-7.98	1.48E-14
2:102949161	rs12479210	T	-2.89	-8.39	7.72E-16
2:102950822	rs13019081	C	-2.91	-8.38	8.44E-16
2:102951062	rs12712140	A	-2.89	-8.3	1.51E-15
2:102951073	rs1997467	G	-2.86	-8.18	3.47E-15
2:102951467	rs1997466	G	-2.86	-8.18	3.47E-15
2:102951798	rs1362350	C	-2.86	-8.18	3.47E-15
2:102951972	rs1362349	C	-2.86	-8.18	3.47E-15
2:102952360	rs17026974	A	-2.65	-7.39	8.26E-13
2:102953067	rs12712141	C	-2.75	-7.88	2.89E-14
2:102954190	rs59247511	C	-2.86	-8.18	3.47E-15
2:102955683	rs873022	T	-2.6	-7.25	2.05E-12
2:102955860	rs3771177	T	-2.7	-7.51	3.60E-13
2:102957532	rs3732129	C	-2.7	-7.51	3.60E-13
2:102957716	rs1420101	T	-2.9	-8.4	6.87E-16
2:102960007	rs12905	A	-2.71	-7.55	2.76E-13
2:102960281	rs3821204	G	-2.71	-7.55	2.76E-13
2:102960485	rs13001714	G	-2.89	-8.39	7.72E-16
2:102960584	rs12712142	A	-2.92	-8.47	4.41E-16
2:102963072	rs6543119	T	-2.9	-8.43	5.91E-16
2:102964742	rs13017455	T	-2.92	-8.47	4.41E-16
2:102964861	rs55927292	T	-2.71	-7.55	2.76E-13
2:102965332	rs17027006	C	-2.71	-7.55	2.76E-13
2:102965871	rs12469506	T	-2.71	-7.55	2.76E-13
2:102966067	rs1921622	A	-3.35	-10.21	5.35E-22
2:102966783	rs1861246	C	-3.38	-10.07	1.65E-21
2:102967844	rs11123923	A	-2.92	-8.47	4.41E-16
2:102969606	rs35224028	C	-2.88	-8.42	5.99E-16
2:102969807	rs67723747	T	-2.73	-7.62	1.72E-13
2:102971165	rs56386507	T	-2.67	-7.44	5.91E-13

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:102971865	rs13015714	T	-3.36	-10.02	2.50E-21
2:102974129	rs12999364	T	-2.86	-8.24	2.30E-15
2:102974417	rs12998521	T	-2.88	-8.32	1.26E-15
2:102975336	rs12987977	G	-2.86	-8.24	2.30E-15
2:102977537	rs6710885	G	-2.82	-8.07	7.50E-15
2:102979028	rs2287037	T	-2.86	-8.24	2.30E-15
2:102981644	rs6727306	C	-3.32	-9.8	1.48E-20
2:102982466	rs11465583	G	-3.27	-9.59	7.91E-20
2:102982703	rs10197284	A	-3.19	-9.37	4.79E-19
2:102982876	rs1573895	C	-3.32	-9.86	9.52E-21
2:102983247	rs4851569	A	-2.86	-8.24	2.30E-15
2:102984279	rs1420098	C	-2.85	-8.25	2.12E-15
2:102984671	rs1882348	A	-2.86	-8.24	2.30E-15
2:102984684	rs1558627	A	-3.32	-9.86	9.52E-21
2:102985424	rs2058622	G	-3.32	-9.86	9.52E-21
2:102985812	rs3771172	T	-2.56	-7.05	7.38E-12
2:102985950	rs3771171	C	-2.58	-7.09	5.74E-12
2:102985980	rs3771170	A	-3.23	-9.51	1.51E-19
2:102986154	rs2160202	A	-2.69	-7.43	6.30E-13
2:102986170	rs2058623	T	-3.28	-9.75	2.31E-20
2:102986618	rs1465321	C	-3.32	-9.86	9.52E-21
2:102987526	rs6742875	T	-3.24	-9.52	1.47E-19
2:102987698	rs6733346	C	-3.23	-9.43	2.81E-19
2:102989734	rs2041740	G	-3.24	-9.52	1.47E-19
2:102991181	rs6731154	T	-3.24	-9.52	1.47E-19
2:102992079	rs2270298	G	-2.88	-8.11	5.64E-15
2:102992675	rs2270297	C	-3.24	-9.52	1.47E-19
2:102993161	rs6753717	C	-3.24	-9.52	1.47E-19
2:102994056	rs10190555	G	-3.24	-9.52	1.47E-19
2:102994714	rs6750020	A	-3.24	-9.52	1.47E-19
2:102994884	rs17027037	G	-2.88	-8.11	5.64E-15
2:102995020	rs2080289	A	-2.88	-8.11	5.64E-15
2:102996022	rs6729638	T	-3.19	-9.28	9.09E-19
2:102996805	rs11683700	T	-2.88	-8.11	5.64E-15
2:102996872	rs3821203	T	-2.86	-8.03	9.92E-15
2:102997174	rs3771162	T	-2.88	-8.11	5.64E-15
2:102997733	rs11465633	T	-2.88	-8.11	5.64E-15
2:102999312	rs56258475	G	-2.88	-8.11	5.64E-15
2:103001402	rs1035130	T	-2.88	-8.11	5.64E-15
2:103002395	rs3755274	G	-3.24	-9.52	1.47E-19
2:103003043	rs2241117	C	-3.24	-9.52	1.47E-19

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:103003265	rs2241116	A	-2.46	-5.97	5.17E-09
2:103006387	rs4851570	G	-2.88	-8.11	5.64E-15
2:103007220	rs2001461	C	-3.24	-9.52	1.47E-19
2:103007567	rs17027060	C	-2.88	-8.11	5.84E-15
2:103007623	rs3860444	G	-3.24	-9.52	1.47E-19
2:103008710	rs12712145	C	-3.2	-9.41	3.42E-19
2:103008969	rs66919607	G	-2.74	-7.73	7.92E-14
2:103010530	rs2287035	A	-2.83	-8	1.26E-14
2:103010588	rs2287034	A	-2.83	-8	1.26E-14
2:103011552	rs4851005	T	-2.83	-8	1.26E-14
2:103012674	rs17027071	T	-2.37	-6.8	3.65E-11
2:103013962	rs3732126	C	-2.83	-8	1.26E-14
2:103013963	rs3732125	C	-2.85	-8.02	1.06E-14
2:103014302	rs1135354	G	-2.77	-7.83	3.98E-14
2:103014696	rs1568681	T	-3.2	-9.41	3.42E-19
2:103015918	rs17027087	T	-2.83	-7.96	1.65E-14
2:103016216	rs55664618	A	-2.7	-7.43	6.03E-13
2:103018077	rs3732123	G	-2.78	-7.79	5.26E-14
2:103019782	rs55742125	A	-2.83	-7.96	1.65E-14
2:103019919	rs1035127	G	-3.22	-9.41	3.28E-19
2:103024331	rs55883125	A	-2.83	-7.96	1.65E-14
2:103024738	rs4851006	A	-2.83	-7.96	1.65E-14
2:103024813	rs4851007	G	-3.25	-9.46	2.23E-19
2:103025203	rs4851575	A	-3.17	-9.35	5.64E-19
2:103026611	rs4851008	C	-3.21	-9.39	3.93E-19
2:103027103	rs6419573	C	-3.21	-9.39	3.93E-19
2:103029165	rs11693955	T	-2.84	-7.99	1.35E-14
2:103029410	rs6543132	G	-3.21	-9.39	3.93E-19
2:103033147	rs1807782	T	-3.21	-9.39	3.93E-19
2:103033825	rs3755272	A	-2.38	-5.8	1.30E-08
2:103035044	rs1420106	G	-3.21	-9.39	3.93E-19
2:103035889	rs2293225	T	-2.42	-5.89	7.97E-09
2:103036677	rs3771156	T	-2.83	-7.96	1.65E-14
2:103038527	rs3755268	G	-3.21	-9.39	3.93E-19
2:103038587	rs3755267	G	-3.15	-9.15	2.57E-18
2:103039584	rs3817465	T	-3.19	-9.29	8.61E-19
2:103039929	rs2272128	A	-3.21	-9.39	3.93E-19
2:103040945	rs887972	A	-2.83	-8.06	8.10E-15
2:103041167	rs887971	C	-2.84	-8.02	1.12E-14
2:103043739	rs11678975	A	-2.86	-8.01	1.17E-14
2:103045020	rs11694658	G	-3.19	-9.33	6.15E-19

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:103046880	rs2160232	A	-3.18	-9.35	5.26E-19
2:103047802	rs66566526	T	-2.84	-8.02	1.12E-14
2:103048103	rs6755786	T	-3.21	-9.45	2.56E-19
2:103048157	rs56331791	A	-2.84	-8.02	1.12E-14
2:103048437	rs6713618	T	-3.21	-9.45	2.56E-19
2:103048467	rs6716784	G	-3.21	-9.45	2.56E-19
2:103049910	rs2041756	G	-3.21	-9.41	3.30E-19
2:103050458	rs6543134	G	-3.21	-9.41	3.30E-19
2:103050925	rs2110735	G	-3.21	-9.41	3.30E-19
2:103051144	rs11681718	G	-2.84	-8.02	1.12E-14
2:103051558	rs4851582	C	-2.84	-8.02	1.12E-14
2:103052206	rs2110734	T	-3.25	-9.61	6.92E-20
2:103052995	rs6746271	C	-3.21	-9.41	3.30E-19
2:103054449	rs2058660	A	-3.21	-9.41	3.30E-19
2:103054803	rs2058658	C	-3.21	-9.41	3.30E-19
2:103055420	rs17027166	A	-2.86	-8.01	1.16E-14
2:103055644	rs4851009	A	-3.21	-9.41	3.30E-19
2:103055661	rs55645612	T	-2.84	-8.02	1.12E-14
2:103056096	rs56166614	G	-2.84	-8.02	1.12E-14
2:103056534	rs10490204	C	-2.82	-7.92	2.25E-14
2:103057159	rs17027179	T	-2.84	-8.02	1.12E-14
2:103058328	rs1558652	A	-3.21	-9.41	3.30E-19
2:103058803	rs11123927	T	-2.8	-7.91	2.33E-14
2:103059237	rs10490203	G	-2.84	-8.02	1.12E-14
2:103060024	rs1558650	A	-3.14	-9.13	2.94E-18
2:103060300	rs4851583	C	-2.84	-8.02	1.12E-14
2:103060313	rs4851584	G	-3.21	-9.41	3.30E-19
2:103060851	rs3771150	A	-2.84	-8.08	7.01E-15
2:103061147	rs11694360	A	-2.84	-8.02	1.12E-14
2:103061286	rs11123928	A	-2.84	-8.02	1.12E-14
2:103062116	rs7597017	G	-2.84	-8.02	1.12E-14
2:103062754	rs4851585	A	-2.84	-8.02	1.12E-14
2:103062880	rs6734736	T	-3.21	-9.41	3.30E-19
2:103063369	rs6708413	A	-3.21	-9.36	5.00E-19
2:103064264	rs4851586	C	-3.21	-9.34	5.90E-19
2:103064503	rs11465727	G	-2.55	-7.24	2.18E-12
2:103064511	rs11465728	A	-2.55	-7.24	2.18E-12
2:103064512	rs11465729	T	-2.55	-7.24	2.18E-12
2:103065367	rs56044378	A	-2.84	-8.02	1.12E-14
2:103065908	rs6543137	G	-3.21	-9.41	3.30E-19
2:103066858	rs11465730	G	-2.76	-7.72	8.62E-14

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:103067143	rs11123929	A	-2.78	-7.84	3.89E-14
2:103068787	rs7559479	A	-3.16	-9.26	1.08E-18
2:103068834	rs7603250	A	-3.16	-9.26	1.08E-18
2:103070568	rs917997	C	-3.16	-9.26	1.08E-18
2:103070988	rs2075185	G	-3.15	-9.16	2.40E-18
2:103073238	rs11678721	G	-2.82	-7.84	3.85E-14
2:103073293	rs11677555	G	-2.76	-7.72	8.62E-14
2:103073474	rs4851587	T	-3.1	-9.06	5.02E-18
2:103073505	rs4851588	G	-3.16	-9.26	1.08E-18
2:103073950	rs6728475	T	-2.7	-7.54	3.06E-13
2:103074079	rs6757276	G	-3.16	-9.26	1.08E-18
2:103074493	rs4070554	G	-3.16	-9.26	1.08E-18
2:103074651	rs56117144	C	-2.81	-7.92	2.17E-14
2:103074813	rs12712150	C	-2.76	-7.72	8.62E-14
2:103075381	rs57081652	C	-2.81	-7.92	2.17E-14
2:103075561	rs6761825	C	-3.16	-9.26	1.08E-18
2:103076001	rs60038017	C	-2.78	-7.84	3.75E-14
2:103076107	rs10175585	A	-2.64	-7.71	9.31E-14
2:103076151	rs13394086	A	-2.44	-7.59	2.12E-13
2:103076154	rs62151860	A	-2.24	-6.3	7.57E-10
2:103076155	rs62151861	A	-2.68	-8.22	2.55E-15
2:103076210	rs6705001	G	-3.14	-9.21	1.59E-18
2:103076351	rs6543141	A	-3.14	-9.21	1.59E-18
2:103076569	rs6705385	C	-2.76	-7.72	8.62E-14
2:103076670	rs6705498	G	-2.76	-7.72	8.62E-14
2:103076888	rs6719196	T	-2.76	-7.72	8.62E-14
2:103077894	rs7561487	G	-3.16	-9.26	1.08E-18
2:103078740	rs4241210	A	-3.16	-9.26	1.08E-18
2:103079297	rs6720564	C	-3.16	-9.26	1.08E-18
2:103079330	rs17027230	T	-2.82	-7.95	1.82E-14
2:103079619	rs6717915	C	-3.16	-9.26	1.08E-18
2:103079814	rs6718157	T	-3.16	-9.26	1.08E-18
2:103080592	rs2075184	C	-3.16	-9.26	1.08E-18
2:103081695	rs11676236	A	-2.76	-7.72	8.62E-14
2:103081721	rs11687013	A	-2.76	-7.72	8.62E-14
2:103082273	rs917996	A	-3.16	-9.26	1.08E-18
2:103082571	rs731628	T	-3.16	-9.26	1.08E-18
2:103083453	rs1403554	A	-3.13	-9.14	2.86E-18
2:103085257	rs12463588	G	-2.76	-7.72	8.62E-14
2:103085631	rs10165460	T	-3.16	-9.26	1.08E-18
2:103085660	rs11123931	G	-3.16	-9.26	1.08E-18

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:103086049	rs2310302	C	-2.76	-7.72	8.62E-14
2:103086758	rs12469887	C	-2.76	-7.72	8.62E-14
2:103086770	rs990171	C	-3.16	-9.26	1.08E-18
2:103087383	rs56043441	T	-2.81	-7.92	2.17E-14
2:103087652	rs10195075	A	-2.74	-7.65	1.40E-13
2:103087662	rs1403553	G	-2.76	-7.72	8.62E-14
2:103088176	rs4140786	T	-2.73	-7.7	1.01E-13
2:103088517	rs4140785	C	-2.78	-7.85	3.54E-14
2:103089078	rs10201184	C	-2.75	-7.69	1.06E-13
2:103089678	rs4851011	T	-2.78	-7.85	3.54E-14
2:103090127	rs17027255	T	-2.78	-7.82	4.46E-14
2:103091001	rs1474309	T	-2.81	-7.99	1.35E-14
2:103091540	rs17027258	G	-2.78	-7.85	3.54E-14
2:103091715	rs10197881	G	-3.16	-9.23	1.44E-18
2:103092021	rs1468791	G	-3.16	-9.23	1.44E-18
2:103092441	rs1468790	C	-2.34	-5.94	5.87E-09
2:103092503	rs1468789	T	-2.21	-4.97	9.95E-07
2:103092513	rs1468788	T	-2.34	-5.94	5.87E-09
2:103092906	rs7597819	G	-3.12	-9.08	4.33E-18
2:103093081	rs6737668	T	-3.16	-9.11	3.48E-18
2:103093243	rs10469840	C	-3.16	-9.27	1.02E-18
2:103094213	rs759382	T	-2.94	-8.45	4.81E-16
2:103094323	rs759381	T	-2.84	-8.06	8.12E-15
2:103096695	rs6543146	G	-1.73	-4.65	4.52E-06
2:103098178	rs1030026	C	-1.73	-4.64	4.78E-06
2:103098191	rs1523199	G	-1.79	-4.79	2.32E-06
2:103098474	rs1523198	T	-1.79	-4.79	2.32E-06
2:103098676	rs2140316	A	-1.78	-4.78	2.48E-06
2:103100298	rs74180219	C	-1.98	-5.39	1.16E-07
2:103100300	rs61604733	C	-1.97	-5.35	1.46E-07
2:103103232	rs10175045	C	-1.79	-4.81	2.12E-06
2:103103297	rs10172588	G	-1.82	-4.9	1.35E-06
2:103103879	rs2310303	G	-1.72	-4.65	4.38E-06
2:103105148	rs2310304	C	-1.81	-4.89	1.44E-06
2:103106569	rs6705272	C	-1.97	-5.23	2.68E-07
2:103106773	rs1523200	G	-1.91	-4.57	6.44E-06
2:103107064	rs1523201	T	-1.8	-4.85	1.76E-06
2:103108852	rs7567885	G	-1.95	-5.19	3.30E-07
2:103109676	rs4851598	C	-1.95	-5.19	3.30E-07
2:103110375	rs1403548	T	-1.8	-4.85	1.76E-06
2:103111761	rs12712153	T	-1.95	-5.17	3.63E-07

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:103111920	rs11687071	A	-1.95	-5.19	3.30E-07
2:103112565	rs7566063	A	-1.8	-4.85	1.76E-06
2:103112641	rs7591872	C	-1.81	-4.9	1.37E-06
2:103112658	rs7591878	A	-1.85	-4.98	9.51E-07
2:103113983	rs6543150	T	-1.75	-4.73	3.16E-06
2:103114041	rs6543151	G	-1.88	-5.01	8.23E-07
2:103114043	rs6543152	A	-1.88	-5.01	8.23E-07
2:103114203	rs6543153	C	-1.97	-5.25	2.40E-07
2:103114334	rs6543154	C	-1.81	-4.87	1.61E-06
2:103114895	rs6543155	A	-1.81	-4.89	1.44E-06
2:103115205	rs7573566	C	-1.97	-5.23	2.68E-07
2:103115568	rs11123934	A	-1.81	-4.89	1.44E-06
2:103115838	rs12987295	A	-1.98	-5.25	2.42E-07
2:103115915	rs4851012	T	-1.98	-5.25	2.42E-07
2:103116020	rs4851599	T	-1.98	-5.25	2.42E-07
2:103116135	rs4851013	T	-1.94	-5.2	3.18E-07
2:103116223	rs4851600	G	-1.94	-5.2	3.18E-07
2:103116276	rs4851014	T	-1.94	-5.2	3.18E-07
2:103116305	rs4851602	A	-1.85	-4.97	1.01E-06
2:103116466	rs12995030	G	-1.97	-5.23	2.68E-07
2:103117095	rs11682754	G	-1.97	-5.23	2.68E-07
2:103117268	rs6728288	T	-1.97	-5.23	2.68E-07
2:103117283	rs6741235	A	-1.97	-5.23	2.68E-07
2:103117509	rs56249513	C	-1.97	-5.23	2.68E-07
2:103117618	rs6741627	T	-1.97	-5.23	2.68E-07
2:103117637	rs6713906	G	-1.92	-5.11	4.97E-07
2:103117827	rs6543157	G	-1.92	-5.11	4.97E-07
2:103117910	rs7591101	T	-1.89	-5.01	8.17E-07
2:103117989	rs7568122	T	-1.97	-5.27	2.23E-07
2:103118027	rs2075193	A	-1.77	-4.77	2.57E-06
2:103118128	rs7593935	A	-1.97	-5.24	2.50E-07
2:103118228	rs2075192	G	-1.97	-5.24	2.50E-07
2:103118299	rs2075191	T	-2	-5.32	1.72E-07
2:103118337	rs2072509	C	-1.97	-5.24	2.50E-07
2:103118342	rs2072508	C	-1.83	-4.95	1.07E-06
2:103118559	rs2075190	T	-1.92	-5.13	4.46E-07
2:103118689	rs2075189	G	-1.97	-5.21	2.92E-07
2:103119029	rs11690932	A	-1.97	-5.23	2.68E-07
2:103120232	rs2075188	A	-1.98	-5.25	2.45E-07
2:103120311	rs2075187	A	-1.82	-4.91	1.32E-06
2:103120356	rs4851015	T	-1.82	-4.91	1.32E-06

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:103120400	rs4851016	T	-1.98	-5.25	2.45E-07
2:103120769	rs4851017	A	-1.97	-5.24	2.58E-07
2:103120868	rs4851605	G	-2.03	-5.42	1.01E-07
2:103120889	rs4851606	A	-1.95	-5.19	3.29E-07
2:103123301	rs13019784	G	-2.86	-8.29	1.59E-15
2:103123633	rs9989842	G	-2.88	-8.39	7.89E-16
2:103123642	rs9989749	A	-2.83	-8.22	2.52E-15
2:103123965	rs6708949	C	-2.88	-8.19	3.16E-15
2:103125018	rs6724109	G	-2.86	-8.29	1.59E-15
2:103125138	rs6751949	A	-2.86	-8.29	1.59E-15
2:103125182	rs6724322	T	-2.88	-8.19	3.16E-15
2:103125457	rs6739301	G	-2.86	-8.29	1.59E-15
2:103125466	rs6742381	C	-2.86	-8.29	1.59E-15
2:103125632	rs4851607	T	-2.86	-8.29	1.59E-15
2:103125736	rs10195948	C	-2.86	-8.29	1.59E-15
2:103125984	rs4851608	T	-2.52	-7.02	9.24E-12
2:103127682	rs10210680	A	-2.87	-8.35	1.05E-15
2:103127963	rs12712155	T	-2.9	-8.29	1.55E-15
2:103128866	rs4851609	C	-2.9	-8.29	1.55E-15
2:103129692	rs11676371	C	-2.91	-8.44	5.42E-16
2:103131679	rs1476999	A	-2.49	-6.87	2.32E-11
2:103132269	rs2192758	G	-2.76	-7.9	2.59E-14
2:103132378	rs2192757	T	-2.9	-8.25	2.05E-15
2:103132640	rs2216000	C	-2.52	-7.02	9.24E-12
2:103133310	rs6714379	G	-2.92	-8.32	1.31E-15
2:103134180	rs1916307	T	-2.9	-8.25	2.05E-15
2:103134652	rs4851610	G	-2.9	-8.25	2.05E-15
2:103135637	rs1523204	A	-2.52	-7.02	9.24E-12
2:103135759	rs1523203	G	-2.9	-8.25	2.05E-15
2:103135938	rs4851611	T	-2.88	-8.16	4.09E-15
2:103136309	rs1403550	C	-2.9	-8.25	2.05E-15
2:103136446	rs1403551	G	-2.9	-8.25	2.05E-15
2:103137015	rs2058657	C	-2.91	-8.31	1.40E-15
2:103137026	rs2058656	G	-2.52	-7.02	9.24E-12
2:103137880	rs4851612	G	-2.52	-7.02	9.24E-12
2:103137990	rs4851613	C	-2.9	-8.25	2.05E-15
2:103138761	rs6750851	G	-2.9	-8.25	2.05E-15
2:103138825	rs6750971	G	-2.9	-8.25	2.05E-15
2:103139298	rs10193407	T	-2.83	-8.06	7.88E-15
2:103139751	rs11123935	G	-2.9	-8.27	1.78E-15
2:103140398	rs4851614	T	-2.65	-7.55	2.87E-13

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:103140472	rs1357471	T	-2.68	-7.63	1.64E-13
2:103141447	rs2015478	G	-2.68	-7.63	1.64E-13
2:103141651	rs1024798	C	-2.81	-7.93	1.97E-14
2:103142491	rs6712638	C	-2.81	-7.93	1.97E-14
2:103143159	rs4241211	G	-2.68	-7.63	1.64E-13
2:103144020	rs12712156	C	-2.68	-7.63	1.64E-13
2:103144242	rs3849364	C	-2.68	-7.63	1.64E-13
2:103144391	rs3849365	A	-2.68	-7.63	1.64E-13
2:103144900	rs3849366	A	-2.68	-7.63	1.64E-13
2:103144944	rs6739236	G	-2.68	-7.63	1.64E-13
2:103145001	rs6712696	A	-2.68	-7.63	1.64E-13
2:103145359	rs1005042	G	-2.71	-7.69	1.08E-13
2:103145426	rs1005043	G	-2.68	-7.63	1.64E-13
2:103146615	rs4851018	T	-2.68	-7.63	1.64E-13
2:103146999	rs4851615	T	-2.52	-6.87	2.28E-11
2:103147256	rs1003431	C	-2.68	-7.63	1.64E-13
2:103147671	rs4241212	G	-2.68	-7.63	1.64E-13
2:103148169	rs741285	T	-2.68	-7.63	1.64E-13
2:103149100	rs1014286	A	-2.68	-7.63	1.64E-13
2:103149162	rs2008159	G	-2.68	-7.63	1.64E-13
2:103149182	rs2008157	G	-2.68	-7.64	1.50E-13
2:103149698	rs1829849	C	-2.68	-7.63	1.64E-13
2:103150204	rs10179779	G	-2.68	-7.63	1.64E-13
2:103150306	rs10179874	C	-2.47	-6.71	6.53E-11
2:103150651	rs10177737	C	-2.68	-7.63	1.64E-13
2:103150691	rs12468713	A	-2.68	-7.63	1.64E-13
2:103151109	rs6737119	A	-2.68	-7.63	1.64E-13
2:103151164	rs6709284	G	-2.68	-7.63	1.64E-13
2:103151219	rs6724213	C	-2.81	-7.93	1.97E-14
2:103151319	rs2177317	G	-2.68	-7.63	1.64E-13
2:103151441	rs2871474	A	-2.81	-7.93	1.97E-14
2:103151862	rs4851616	T	-2.81	-7.93	1.97E-14
2:103152060	rs4851617	T	-2.68	-7.63	1.64E-13
2:103152216	rs7578425	G	-2.76	-7.76	6.59E-14
2:103152975	rs10172553	T	-2.5	-6.8	3.59E-11
2:103153780	rs4292112	A	-2.65	-7.55	2.87E-13
2:103155069	rs6761291	T	-2.5	-6.8	3.59E-11
2:103156205	rs7576376	C	-2.72	-7.65	1.43E-13
2:103157352	rs6543158	G	-2.81	-7.93	1.97E-14
2:103159093	rs11685483	C	-2.79	-7.81	4.75E-14
2:103160057	rs6543159	C	-2.87	-8.18	3.43E-15

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:103160443	rs6739426	G	-2.81	-7.93	1.97E-14
2:103160832	rs10490202	G	-2.68	-7.63	1.64E-13
2:103161053	rs11899041	A	-2.81	-7.93	1.97E-14
2:103162861	rs1811263	T	-2.5	-6.8	3.59E-11
2:103162992	rs1811262	C	-2.68	-7.63	1.64E-13
2:103165129	rs12712157	C	-2.81	-7.93	1.97E-14
2:103165504	rs10194822	G	-2.53	-6.87	2.33E-11
2:103165832	rs1303960	A	-2.81	-7.93	1.97E-14
2:103166043	rs2215998	G	-2.53	-6.87	2.33E-11
2:103166298	rs12712158	C	-2.59	-7.02	9.00E-12
2:103166534	rs723293	C	-2.56	-6.92	1.69E-11
2:103167724	rs7581853	T	-2.69	-7.67	1.27E-13
2:103168605	rs6753722	A	-2.71	-7.73	8.37E-14
2:103168977	rs10193009	T	-2.69	-7.73	8.21E-14
2:103169682	rs11123937	A	-2.69	-7.65	1.43E-13
2:103169982	rs12712159	A	-2.69	-7.71	9.08E-14
2:103170181	rs10196579	T	-2.5	-6.8	3.59E-11
2:103170919	rs997056	G	-2.68	-7.63	1.64E-13
2:103171066	rs2310295	A	-2.5	-6.8	3.59E-11
2:103172263	rs2110737	A	-2.69	-7.67	1.27E-13
2:103173059	rs2005881	A	-2.81	-7.88	2.89E-14
2:103174935	rs1989184	G	-2.81	-7.93	1.97E-14
2:103175376	rs10171438	A	-2.53	-6.87	2.33E-11
2:103175749	rs10210658	G	-2.7	-7.71	9.21E-14
2:103176411	rs4851619	T	-2.81	-7.93	1.97E-14
2:103176797	rs6761871	C	-2.74	-7.76	6.65E-14
2:103177414	rs10202404	T	-2.53	-6.87	2.33E-11
2:103177565	rs4851019	A	-2.5	-6.81	3.41E-11
2:103182273	rs12469973	G	-2.45	-6.68	7.63E-11
2:103188785	rs11123938	G	-2.34	-6.34	5.93E-10
2:103208610	rs1861229	G	-2.02	-5.45	8.66E-08
2:103273676	rs11677922	A	-1.67	-4.69	3.74E-06
2:103287966	rs12052753	C	1.86	4.95	1.09E-06
2:137575582	rs199977663	A	2.7	4.99	8.87E-07
2:16200946	rs7605722	A	-1.67	-4.61	5.36E-06
2:16201132	rs7605772	A	-1.67	-4.61	5.36E-06
2:16202446	rs13427501	G	-1.67	-4.61	5.36E-06
2:16204606	rs7600440	A	-1.72	-4.79	2.33E-06
2:16206193	rs4499395	T	-1.72	-4.8	2.22E-06
2:16207141	rs6760942	A	-1.72	-4.8	2.22E-06
2:16212065	rs28432381	A	1.68	4.64	4.65E-06

POS	SNP	Effective Allele	Estimate	Stat	p-value
2:16214286	rs4073262	A	1.62	4.51	8.34E-06
20:51381201	rs111246464	T	3.45	4.59	5.76E-06
20:55270493	rs4583526	G	-1.69	-4.5	8.78E-06
4:11286652	rs2141304	G	2.12	4.65	4.47E-06
4:11291091	rs10805282	G	-2.1	-4.56	6.72E-06
4:11291169	rs10805283	G	-2.1	-4.56	6.72E-06
4:11291539	rs13128031	T	-2.1	-4.56	6.72E-06
4:96370605	rs4103380	C	1.8	4.59	5.76E-06
5:156401928	rs191531802	G	2.74	4.95	1.10E-06
5:156450845	rs117979984	C	3.54	4.62	5.21E-06
5:156457158	rs138665140	G	3.54	4.62	5.21E-06
5:35237736	rs7705676	C	2.21	4.55	7.06E-06
5:35238047	rs7727503	G	2.17	4.52	8.11E-06
5:35238245	rs7710279	C	2.21	4.55	7.06E-06
5:35238365	rs10472952	C	2.21	4.55	7.06E-06
5:35238779	rs9292581	A	2.21	4.55	7.06E-06
5:35239028	rs4703514	C	2.19	4.56	6.61E-06
5:35239203	rs13361375	G	2.21	4.55	7.06E-06
6:146685324	rs2300619	C	2.2	4.61	5.48E-06
7:106147658	rs17288506	C	2.54	4.55	6.91E-06
7:106150256	rs13229385	G	2.5	4.48	9.57E-06
7:106156253	rs9886235	C	2.5	4.58	6.28E-06
7:106160902	rs13238247	C	2.5	4.58	6.28E-06
7:106162503	rs10279909	G	2.5	4.58	6.28E-06
7:106162983	rs17837506	G	2.5	4.58	6.28E-06
7:106163550	rs13222141	A	2.5	4.58	6.28E-06
7:81588636	rs1229502	A	2.04	4.66	4.36E-06
8:21616063	rs6587006	C	-1.93	-5.43	9.68E-08
9:111538148	rs5006678	C	-2.51	-4.86	1.65E-06
9:111538149	rs5006679	C	-2.19	-4.64	4.77E-06
9:131696704	rs7849649	A	2.06	4.53	7.84E-06
9:71876805	rs7047059	T	4.25	5.65	3.05E-08
9:71883053	rs10283781	G	4.13	5.49	6.84E-08
9:71903717	rs10867298	T	4.19	5.53	5.81E-08
9:71903721	rs10867299	C	4.19	5.53	5.81E-08
9:71903965	rs57491316	T	4.19	5.53	5.81E-08
9:71904249	rs56795581	A	4.19	5.53	5.81E-08
9:71905304	rs11137952	A	4.19	5.53	5.81E-08
9:71905591	rs201118747	G	4.13	5.49	6.84E-08
9:71905605	rs199851061	C	4.13	5.49	6.84E-08
9:71906042	rs138313346	T	4.13	5.49	6.84E-08

POS	SNP	Effective Allele	Estimate	Stat	p-value
9:71906974	rs11137959	G	4.13	5.49	6.84E-08
X:166155	rs56242654	T	-1.58	-4.49	9.37E-06

Table 5

Position	SNP	Effective Allele	β (SE)	P-value	Causal probability ^a
chr2:102966067	rs1921622	A	-3.346 (0.327)	5.35E-22	0.9999
chr2:102960584	rs12712142	A	-2.919 (0.344)	4.41E-16	0.1745
chr2:102964742	rs13017455	T	-2.919 (0.344)	4.41E-16	0.1745
chr2:102967844	rs11123923	A	-2.919 (0.344)	4.41E-16	0.1745
chr2:102931826	rs13020553	G	-2.907 (0.344)	4.75E-16	0.0556
chr2:102932562	rs950880	A	-2.907 (0.344)	4.75E-16	0.0556
chr2:102939036	rs13001325	T	-2.890 (0.344)	7.72E-16	0.0534
chr2:102948470	rs1420104	A	-2.890 (0.344)	7.72E-16	0.0534
chr2:102949161	rs12479210	T	-2.890 (0.344)	7.72E-16	0.0534
chr2:102960485	rs13001714	G	-2.890 (0.344)	7.72E-16	0.0534
chr2:102963072	rs6543119	T	-2.904 (0.344)	5.91E-16	0.0508
chr2:102957716	rs1420101	T	-2.895 (0.344)	6.87E-16	0.0253
chr2:102950822	rs13019081	C	-2.905 (0.346)	8.44E-16	0.0250
chr2:102926362	rs12470864	A	-2.880 (0.343)	7.15E-16	0.0168
chr2:102969606	rs35224028	C	-2.878 (0.342)	5.99E-16	0.0154
chr2:102974417	rs12998521	T	-2.877 (0.346)	1.26E-15	0.0044
chr2:102974129	rs12999364	T	-2.858 (0.347)	2.30E-15	0.0022
chr2:102975336	rs12987977	G	-2.858 (0.347)	2.30E-15	0.0022
chr2:102979028	rs2287037	T	-2.858 (0.347)	2.30E-15	0.0022
chr2:102983247	rs4851569	A	-2.858 (0.347)	2.30E-15	0.0022
chr2:102984671	rs1882348	A	-2.858 (0.347)	2.30E-15	0.0022
chr2:102984279	rs1420098	C	-2.854 (0.346)	2.12E-15	0.0019

Table 6

Chinese_cohort_2 (WGS)	Healthy control	Alzheimer's disease
<i>n</i>	829	867
Age, years (SD)	69.14 (7.12)	71.15 (7.26)
Sex, male (%)	394 (47.53%)	391 (45.10%)
MMSE score (SD)	28.60 (1.41)	14.80 (6.27)
<i>APOE</i> - ϵ 4, allele frequency	9.41%	26.07%
<i>APOE</i> - ϵ 2, allele frequency	8.20%	4.84%
Chinese_cohort_2 (Array)	Healthy control	Alzheimer's disease
<i>n</i>	311	425
Age, years (SD)	69.82 (6.42)	71.17 (7.13)
Sex, male (%)	119 (38.26%)	169 (39.76%)
MMSE score (SD)	28.27 (1.77)	15.06 (6.08)
<i>APOE</i> - ϵ 4, allele frequency	8.52%	32.35%
<i>APOE</i> - ϵ 2, allele frequency	7.88%	5.29%
LOAD	Healthy control	Alzheimer's disease
<i>n</i>	2,231	464
Age, years (SD)	80.68 (10.75)	83.80 (6.62)
Sex, male (%)	871 (39.04%)	144 (31.03%)
<i>APOE</i> - ϵ 4, allele frequency	20.77%	46.34%
<i>APOE</i> - ϵ 2, allele frequency	6.90%	2.80%
ADC	Healthy control	Alzheimer's disease
<i>n</i>	1,430	3,422
Age, years (SD)	76.70 (8.36)	79.82 (7.64)
Sex, male (%)	902 (63.08%)	1809 (52.86%)
<i>APOE</i> - ϵ 4, allele frequency	13.39%	39.04%
<i>APOE</i> - ϵ 2, allele frequency	9.02%	3.34%
ADNI	Healthy control	Alzheimer's disease
<i>n</i>	290	378
Age, years (SD)	78.51 (6.64)	78.59 (6.95)
Sex, male (%)	147 (50.68%)	231 (61.11%)
<i>APOE</i> - ϵ 4, allele frequency	13.45%	42.33%
<i>APOE</i> - ϵ 2, allele frequency	7.24%	2.92%

Table 7

		Overall					APOE-ε4 carriers					APOE-ε4 noncarriers				
		<i>N</i>	HC	AD	OR	<i>P</i>	<i>n</i>	HC	AD	OR	<i>P</i>	<i>n</i>	HC	AD	OR	<i>P</i>
rs1921622 A allele	Chinese_cohort_1	690	49.13%	51.01%	0.84	0.20	171	57.00%	50.41%	0.50	0.01	519	47.80%	51.33%	1.01	0.92
	Chinese_cohort_2 (WGS)	1,696	42.58%	43.02%	1.01	0.82	517	44.44%	42.76%	0.93	0.60	1179	42.19%	43.22%	1.03	0.64
	Chinese_cohort_2 (Array)	736	43.41%	42.94%	0.98	0.86	273	52.88%	41.40%	0.61	0.02	463	41.51%	44.60%	1.15	0.31
	LOAD	2,695	52.84%	50.43%	0.84	0.01	1,194	54.78%	52.30%	0.84	0.06	1,501	51.66%	44.87%	0.70	0.01
	ADC	4,852	53.57%	52.70%	0.96	0.44	2,521	53.76%	52.84%	0.97	0.79	2,331	53.50%	52.46%	0.96	0.52
	ADNI	668	53.45%	53.31%	0.94	0.62	324	52.82%	54.15%	1.02	0.90	344	53.65%	51.60%	0.90	0.55

Table 8

		Male <i>APOE</i> -ε4 carriers					Female <i>APOE</i> -ε4 carriers				
		<i>n</i>	HC	AD	OR	<i>P</i>	<i>n</i>	HC	AD	OR	<i>P</i>
rs1921622 A allele	Chinese cohort 1	62	54.00%	60.81%	0.42	0.14	109	60.00%	45.83%	0.45	0.02
	Chinese cohort 2 (WGS)	225	35.91%	45.13%	1.44	0.07	292	52.74%	41.09%	0.63	0.01
	Chinese cohort 2 (Array)	91	46.15%	44.87%	1.02	0.95	182	55.13%	39.51%	0.51	0.01
	LOAD	456	53.35%	53.98%	0.95	0.74	738	55.75%	51.49%	0.78	0.03
	ADC	1,349	53.71%	51.65%	0.99	0.95	1,172	53.84%	54.12%	0.97	0.84
	ADNI	194	48.72%	56.77%	1.39	0.23	130	57.81%	50.00%	0.68	0.20

Table 9

ASO	sense	antisense
hsST2-1	GGTCCAAGAGATCCATCAA	TTGATGGATCTCTTGGAACC
hsST2-2	AGAGATCCATCAAGACAATG	CATTGTCTTGATGGATCTCT
hsST2-3	GAGATCCATCAAGACAATGG	CCATTGTCTTGATGGATCTC
hsST2-4	TTCTTCGGGATGTTGTTTGC	GCAAACAACATCCCGAAGAA
hsST2-5	TCTTCGGGATGTTGTTTGTCT	AGCAAACAACATCCCGAAGA
hsST2-6	GAGCTTCTCTGCTGCTTAAA	TTTAAGCAGCAGAGAAGCTC
hsST2-7	GCTGCTTAAATTGTTTCGTCC	GGACGAACAATTTAAGCAGC
hsST2-8	GCTTAAATTGTTTCGTCTCC	GGAGGACGAACAATTTAAGC
hsST2-9	CCTCCTATCGTTGGTTTGTCT	GACAAACCAACGATAGGAGG
hsST2-10	TCCTATCGTTGGTTTGTCTA	TAGACAAACCAACGATAGGA
hsST2-11	CCTATCGTTGGTTTGTCTAG	CTAGACAAACCAACGATAGG
hsST2-12	TATCGTTGGTTTGTCTAGAA	TTCTAGACAAACCAACGATA
hsST2-13	ATCGTTGGTTTGTCTAGAAC	GTTCTAGACAAACCAACGAT
hsST2-14	TCGTTGGTTTGTCTAGAACAA	TGTTCTAGACAAACCAACGA
hsST2-15	CGTTGGTTTGTCTAGAACAC	GTGTTCTAGACAAACCAACG
hsST2-16	TAGAACAACCTAGCTGCTTCT	AGAAGCAGCTGAGTGTTCTA
hsST2-17	TCTAACTTTATGAACTCCCT	AGGGAGTTCATAAAGTTAGA
hsST2-18	AGGAAATGCACCAACAACCG	CGGTTGTTGGTGCATTTCT
hsST2-19	GGAAATGCACCAACAACCGT	ACGGTTGTTGGTGCATTTCC
hsST2-20	AAATGCACCAACAACCGTAA	TTACGGTTGTTGGTGCATTT
hsST2-21	TGCACCAACAACCGTAAACT	AGTTTACGGTTGTTGGTGCA
hsST2-22	GCACCAACAACCGTAAACTG	CAGTTTACGGTTGTTGGTGC
hsST2-23	CACCAACAACCGTAAACTGA	TCAGTTTACGGTTGTTGGTG
hsST2-24	ACCAACAACCGTAAACTGAA	TTCAAGTTTACGGTTGTTGGT
hsST2-25	CCAACAACCGTAAACTGAAC	GTTCAAGTTTACGGTTGTTGG
hsST2-26	ACAACCGTAAACTGAACGTG	CACGTTCAAGTTTACGGTTGT
hsST2-27	CAACCGTAAACTGAACGTGT	ACACGTTCAAGTTTACGGTTG
hsST2-28	AACCGTAAACTGAACGTGTT	AACACGTTCAAGTTTACGGTT
hsST2-29	ACCGTAAACTGAACGTGTTT	GAACACGTTCAAGTTTACGGT
hsST2-30	CCGTAAACTGAACGTGTTCT	AGAACACGTTCAAGTTTACGG
hsST2-31	CGTAAACTGAACGTGTTCTT	AAGAACACGTTCAAGTTTACG
hsST2-32	CATGTTGTAAGCATGGTCCG	CGGACCATGCTTACAACATG
hsST2-33	AAGCATGGTCCGTTCTATAC	GTATAGAACGGACCATGCTT
hsST2-34	AGCATGGTCCGTTCTATACC	GGTATAGAACGGACCATGCT
hsST2-35	GATGGTCCGTTCTATACCT	AGGTATAGAACGGACCATGC
hsST2-36	CATGGTCCGTTCTATACCTT	AAGGTATAGAACGGACCATG
hsST2-37	ATGGTCCGTTCTATACCTTT	AAAGGTATAGAACGGACCAT
hsST2-38	TGGTCCGTTCTATACCTTTT	AAAAGGTATAGAACGGACCA
hsST2-39	CGTTCTATACCTTTTCTGG	CCAGAAAAAGGTATAGAACG
hsST2-40	AACTCATTTTGTAGCGAG	CTCGCTAACAAAATGAGTGT
hsST2-41	CACTCATTTTGTAGCGAGG	CCTCGCTAACAAAATGAGTG

ASO	sense	antisense
hsST2-42	AGGGGAAGTATCAAACACTACT	AGTAGTTTGATACTTCCCCT
hsST2-43	GAGAAAATCCTAGGTGCTAC	GTAGCACCTAGGATTTTCTC
hsST2-44	ACCATACCACACACATTATC	GATAATGTGTGTGGTATGGT
hsST2-45	AAGGTACATGGAACACACGG	CCGTGTGTTCCATGTACCTT
hsST2-46	CACACGGGAAGTCTGGTAGC	GCTACCAGACTTCCCGTGTG
hsST2-47	ACACGGGAAGTCTGGTAGCT	AGCTACCAGACTTCCCGTGT
hsST2-48	CACGGGAAGTCTGGTAGCTC	GAGCTACCAGACTTCCCGTG
hsST2-49	ACGGGAAGTCTGGTAGCTCA	TGAGCTACCAGACTTCCCGT
hsST2-50	CGGGAAGTCTGGTAGCTCAG	CTGAGCTACCAGACTTCCCG
hsST2-51	GAAGTCTGGTAGCTCAGCCC	GGGCTGAGCTACCAGACTTC
hsST2-52	TCACCATGTAATTCAGGTAC	GTACCTGAATTACATGGTGA
hsST2-53	CACCATGTAATTCAGGTACC	GGTACCTGAATTACATGGTG
hsST2-54	TGTAATTCAGGTACCACGTA	TACGTGGTACCTGAATTACA
hsST2-55	TAATTCAGGTACCACGTATT	AATACGTGGTACCTGAATTA
hsST2-56	AATTCAGGTACCACGTATTC	GAATACGTGGTACCTGAATT
hsST2-57	ATTCAGGTACCACGTATTCC	GGAATACGTGGTACCTGAAT
hsST2-58	CAGGTACCACGTATTCCAGG	CCTGGAATACGTGGTACCTG
hsST2-59	AGGTACCACGTATTCCAGGG	CCCTGGAATACGTGGTACCT
hsST2-60	GGTACCACGTATTCCAGGGA	TCCCTGGAATACGTGGTACC
hsST2-61	TACCACGTATTCCAGGGAGC	GCTCCCTGGAATACGTGGTA
hsST2-62	ACCACGTATTCCAGGGAGCC	GGCTCCCTGGAATACGTGGT
hsST2-63	CCACGTATTCCAGGGAGCCT	AGGCTCCCTGGAATACGTGG
hsST2-64	ACGTATTCCAGGGAGCCTTT	AAAGGCTCCCTGGAATACGT
hsST2-65	GCCCTCAGTTTGACGTATAC	GTATACTGCAAACAGAGGC
hsST2-66	GCAGTATACACACTTTCCAA	TTGGAAAAGTGTGTATACTGC
hsST2-67	GGTCACATTGCCTTACCTAA	TTAGGTAAGGCAATGTGACC
hsST2-68	GTCACATTGCCTTACCTAAA	TTTAGGTAAGGCAATGTGAC
hsST2-69	TTGACAGTCTGCTCAACACG	CGTGTTGAGCAGACTGTCAA
hsST2-70	TGACAGTCTGCTCAACACGA	TCGTGTTGAGCAGACTGTCA
hsST2-71	GACAGTCTGCTCAACACGAC	GTCGTGTTGAGCAGACTGTC
hsST2-72	ACAGTCTGCTCAACACGACT	AGTCGTGTTGAGCAGACTGT
hsST2-73	CAGTCTGCTCAACACGACTG	CAGTCGTGTTGAGCAGACTG
hsST2-74	AGTCTGCTCAACACGACTGC	GCAGTCGTGTTGAGCAGACT
hsST2-75	TCTGCTCAACACGACTGCAA	TTGCAGTCGTGTTGAGCAGA
hsST2-76	TGCTCAACACGACTGCAAGC	GCTTGCAGTCGTGTTGAGCA
hsST2-77	GCTCAACACGACTGCAAGCT	AGCTTGCAGTCGTGTTGAGC
hsST2-78	ATCTTTGGGTCCTTAGTGCA	TGCACTAAGGACCCAAAGAT
hsST2-79	CTTTGGGTCCTTAGTGCAAT	ATTGCACTAAGGACCCAAAG
hsST2-80	TTGGGTCCTTAGTGCAATAC	GTATTGCACTAAGGACCCAA
hsST2-81	TTAGTGCAATACCTGGCAGC	GCTGCCAGGTATTGCACTAA
hsST2-82	CTTCTCTAGCTATAAGTCTT	AAGACTTATAGCTAGAGAAG
hsST2-83	GCTATAAGTCTTAATTATAC	GTATAATTAAGACTTATAGC
hsST2-84	TTGGTGGCATCACAAATAGC	GCTATTTGTGATGCCACCAA
hsST2-85	TGGTGGCATCACAAATAGCC	GGCTATTTGTGATGCCACCA

ASO	sense	antisense
hsST2-86	TATCATCACTATGCCCAGAC	GTCTGGGCATAGTGATGATA
hsST2-87	ATCATCACTATGCCCAGACA	TGTCTGGGCATAGTGATGAT
hsST2-88	GTCTCTGAATGCAATGTTGT	ACAACATTGCATTGAGAGAC
hsST2-89	GACATCCTGTTTGCTATATG	CATATAGCAAACAGGATGTC
hsST2-90	TGAAGCATTGTATCCCGTAT	ATACGGGATACAATGCTTCA
hsST2-91	GAAGCATTGTATCCCGTATA	TATACGGGATACAATGCTTC
hsST2-92	AAGCATTGTATCCCGTATAA	TTATACGGGATACAATGCTT
hsST2-93	AGCATTGTATCCCGTATAAA	TTTATACGGGATACAATGCT
hsST2-94	GCATTGTATCCCGTATAAAA	TTTTATACGGGATACAATGC
hsST2-95	CATTGTATCCCGTATAAAAG	CTTTTATACGGGATACAATG
hsST2-96	ATTGTATCCCGTATAAAAGG	CCTTTTATACGGGATACAAT
hsST2-97	GTATCCCGTATAAAAGGAAG	CTTCCTTTTATACGGGATAC
hsST2-98	TACACTCATCACTCCTCAGG	CCTGAGGAGTGATGAGTGTA
hsST2-99	AATGTGCCTGTCAAATAGCC	GGCTATTTGACAGGCACATT
hsST2-100	ATGTGCCTGTCAAATAGCCA	TGGCTATTTGACAGGCACAT
hsST2-101	AGCCAAAGAGTGTTAAACCC	GGGTTTAACTCTTTGGCT
hsST2-102	GTGGTATGGTTAGGATTCAT	ATGAATCCTAACCATACCAC
hsST2-103	GTATGGTTAGGATTCATCCA	TGGATGAATCCTAACCATAC
hsST2-104	AATATGGTGTAAATCGTGCCA	TGCCACGATTACACCATATT
hsST2-105	ATATGGTGTAAATCGTGCCAG	CTGCCACGATTACACCATAT
hsST2-106	TATGGTGTAAATCGTGCCAGG	CCTGCCACGATTACACCATA
hsST2-107	TGGTGTAAATCGTGCCAGGTC	GACCTGCCACGATTACACCA
hsST2-108	GGTGTAAATCGTGCCAGGTCT	AGACCTGCCACGATTACACC
hsST2-109	TGTAATCGTGCCAGGTCTCT	AGAGACCTGCCACGATTACA
hsST2-110	GTAATCGTGCCAGGTCTCTG	CAGAGACCTGCCACGATTAC
hsST2-111	TAATCGTGCCAGGTCTCTGC	GCAGAGACCTGCCACGATTA
hsST2-112	AATCGTGCCAGGTCTCTGCC	GGCAGAGACCTGCCACGATT
hsST2-113	TCATAACTCATGTAGATGGC	GCCATCTACATGAGTTATGA
hsST2-114	TAACTCATGTAGATGGCTAT	ATAGCCATCTACATGAGTTA
hsST2-115	CTCATGTAGATGGCTATAAG	CTTATAGCCATCTACATGAG
hsST2-116	TCATGTAGATGGCTATAAGT	ACTTATAGCCATCTACATGA
hsST2-117	CATGTAGATGGCTATAAGTG	CACTTATAGCCATCTACATG
hsST2-118	GTAGATGGCTATAAGTGCCG	CGGCACTTATAGCCATCTAC
hsST2-119	TAGATGGCTATAAGTGCCGT	ACGGCACTTATAGCCATCTA
hsST2-120	AGATGGCTATAAGTGCCGTA	TACGGCACTTATAGCCATCT
hsST2-121	GATGGCTATAAGTGCCGTAG	CTACGGCACTTATAGCCATC
hsST2-122	ATGGCTATAAGTGCCGTAGT	ACTACGGCACTTATAGCCAT
hsST2-123	TGGCTATAAGTGCCGTAGTG	CACTACGGCACTTATAGCCA
hsST2-124	CTATAAGTGCCGTAGTGTTCT	GAACACTACGGCACTTATAG
hsST2-125	TATAAGTGCCGTAGTGTTCT	AGAACACTACGGCACTTATA
hsST2-126	GTGCCGTAGTGTTCTGTGGG	CCCACAGAACTACGGCAC
hsST2-127	CAGTGATAAGTGTTGGACCC	GGGTGCCACACTTATCACTG
hsST2-128	ATCAAGGTGCTATGTGAGGG	CCCTCACATAGCACCTTGAT
hsST2-129	CTATGTGAGGGCCATGCTTG	CAAGCATGGCCCTCACATAG

ASO	sense	antisense
hsST2-130	ATGTGAGGGCCATGCTTGGG	CCCAAGCATGGCCCTCACAT
hsST2-131	CCCAGTAGACCCTGCAGCCA	TGGCTGCAGGGTCTACTGGG
hsST2-132	GTGTACTCCTGCTTTGCTAC	GTAGCAAAGCAGGAGTACAC
hsST2-133	TGTACTCCTGCTTTGCTACG	CGTAGCAAAGCAGGAGTACA
hsST2-134	TCCTGCTTTGCTACGTTATC	GATAACGTAGCAAAGCAGGA
hsST2-135	TTTGCTACGTTATCATTGAT	ATCAATGATAACGTAGCAAA
hsST2-136	TTGATCAATGTCCCTGGTTA	TAACCAGGGACATTGATCAA
hsST2-137	GATCAATGTCCCTGGTTACC	GGTAACCAGGGACATTGATC
hsST2-138	TGGTTACACTCTGTTTCAGC	GCTGAAACAGAGTGTAACCA
hsST2-139	ATGGGAAGCATGGCGGCATC	GATGCCGCCATGCTTCCCAT
hsST2-140	CCACCTCGAATACTGGGGAT	ATCCCCAGTATTCGAGGTGG
hsST2-141	GCAATACCTGGCAGCTAGCC	GGCTAGCTGCCAGGTATTGC
hsST2-142	AATAGCCAAAGCAGGGTGGA	TCCACCCTGCTTTGGCTATT
hsST2-143	ACAGAGGTGGACTGATCCTT	AAGGATCAGTCCACCTCTGT
hsST2-144	GTATAAAAGGAAGGAAAGAG	CTCTTTCCTTCCTTTTATAC
msST2-1	GTCCCTCACACATTGCTTGA	TCAAGCAATGTGTGAGGGAC
msST2-2	TGCTTGAATAAATTGGCTGA	TCAGCCAATTTATTCAAGCA
msST2-3	ATCAGCTGTGCACTGCATCC	GGATGCAGTGCACAGCTGAT
msST2-4	GGAATAGTTGGCCTGTTTCA	TGAAACAGGCCAACTATTCC
msST2-5	GTTGGCCTGTTTCATCAAGT	ACTTGATGAAACAGGCCAAC
msST2-6	CATCAAGTGTTCTTCTCACG	CGTGAGAAGAACACTTGATG
msST2-7	CAGGAATCTCTGTCAATTGTA	TACAATGACAGAGATTCTCG
msST2-8	CCCTTAATGTGTTCTTGACC	GGTCAAGAACACATTAAGGG
msST2-9	CCTTAATGTGTTCTTGACCC	GGGTCAAGAACACATTAAGG
msST2-10	CACCCAATAGTGGCTTTTGC	GCAAAAAGCCACTATTGGGTG
msST2-11	ACCCAATAGTGGCTTTTGC	TGCAAAAAGCCACTATTGGGT
msST2-12	CCCAATAGTGGCTTTTGCAG	CTGCAAAAAGCCACTATTGGG
msST2-13	CAATAGTGGCTTTTGCAGTC	GACTGCAAAAAGCCACTATTG
msST2-14	CAGTCATCCTTTGTACCGAC	GTCGGTACAAAGGATGACTG
msST2-15	AGTCATCCTTTGTACCGACT	AGTCGGTACAAAGGATGACT
msST2-16	GTCATCCTTTGTACCGACTA	TAGTCGGTACAAAGGATGAC
msST2-17	TCATCCTTTGTACCGACTAC	GTAGTCGGTACAAAGGATGA
msST2-18	ATCCTTTGTACCGACTACAA	TTGTAGTCGGTACAAAGGAT
msST2-19	TCCTTTGTACCGACTACAAG	CTTGAGTCGGTACAAAGGA
msST2-20	CCTTTGTACCGACTACAAGG	CCTTGAGTCGGTACAAAGG
msST2-21	CTTTGTACCGACTACAAGGG	CCCTTGAGTCGGTACAAAG
msST2-22	TTGTACCGACTACAAGGGAC	GTCCCTTGAGTCGGTACAA
msST2-23	ACCGACTACAAGGGACATTG	CAATGTCCCTTGAGTCGGT
msST2-24	CCGACTACAAGGGACATTGG	CCAATGTCCCTTGAGTCGG
msST2-25	CGACTACAAGGGACATTGGT	ACCAATGTCCCTTGAGTCG
msST2-26	TTGGTATTGGTAGTGGGTTT	GAACCCACTACCAATACCAA
msST2-27	TATTGGTAGTGGGTTTCAAG	CTCTGAACCCACTACCAATA
msST2-28	GTAGTGGGTTTCAAGCAGTA	TACTGCTCTGAACCCACTAC
msST2-29	CAGAGCAGTAATAACTCTGC	GCAGAGTTATTACTGCTCTG

ASO	sense	antisense
msST2-30	GAGCAGTTATTAATCCCTT	AAGGGAATTAATAACTGCTC
msST2-31	GCAGTTATTAATCCCTTGC	GCAAGGGAATTAATAACTGC
msST2-32	ATTAATCCCTTGCTTGGTC	GACCAAGCAAGGGAATTAAT
msST2-33	ATCATGATAGATAGATGACC	GGTCATCTATCTATCATGAT
msST2-34	AGATAGATGACCAACCTGAT	ATCAGGTTGGTCATCTATCT
msST2-35	GATAGATGACCAACCTGATC	GATCAGGTTGGTCATCTATC
msST2-36	ATAGATGACCAACCTGATCC	GGATCAGGTTGGTCATCTAT
msST2-37	TAGATGACCAACCTGATCCG	CGGATCAGGTTGGTCATCTA
msST2-38	AGATGACCAACCTGATCCGA	TCGGATCAGGTTGGTCATCT
msST2-39	ATGACCAACCTGATCCGATT	AATCGGATCAGGTTGGTCAT
msST2-40	ACCAACCTGATCCGATTTTA	TAAAATCGGATCAGGTTGGT
msST2-41	CAACCTGATCCGATTTTAAA	TTTAAAATCGGATCAGGTTG
msST2-42	AACCTGATCCGATTTTAAAA	TTTTAAAATCGGATCAGGTT
msST2-43	ATCACTCTCTTATGATACTG	CAGTATCATAAGAGAGTGAT
msST2-44	TCTTATGATACTGACCACTG	CAGTGGTCAGTATCATAAGA
msST2-45	ACCACTGCCTTACTGGCAAT	ATTGCCAGTAAGGCAGTGGT
msST2-46	CCACTGCCTTACTGGCAATA	TATTGCCAGTAAGGCAGTGG
msST2-47	TGCCTTACTGGCAATACAAC	GTTGTATTGCCAGTAAGGCA
msST2-48	TTACTGGCAATACAATAAT	ATTAGTTGTATTGCCAGTAA
msST2-49	TACTGGCAATACAATAATA	TATTAGTTGTATTGCCAGTA
msST2-50	CTGGCAATACAATAATATG	CATATTAGTTGTATTGCCAG
msST2-51	GAGACACTAACTCTAAGATC	GATCTTAGAGTTAGTGTCTC
msST2-52	ACACTAACTCTAAGATCATA	TATGATCTTAGAGTTAGTGT
msST2-53	AACTCTAAGATCATAGCAAT	ATTGCTATGATCTTAGAGTT
msST2-54	ACTCTAAGATCATAGCAATA	TATTGCTATGATCTTAGAGT
msST2-55	TATTGATTAAGAGGGTAGGG	CCCTACCCTTTTAATCAATA
msST2-56	ATTAAGAGGGTAGGGTGGAG	CTCCACCCTACCCTTTTAAT
msST2-57	GGGTAGGGTAGGGTACCTA	TAGGTACCTCCACCCTACCC
msST2-58	AGGGTAGGGTACCTATTAG	CTAATAGGTACCTCCACCCT
msST2-59	GGGTAGGGTACCTATTAGA	TCTAATAGGTACCTCCACCC
msST2-60	GGTAGGGTACCTATTAGAT	ATCTAATAGGTACCTCCACC
msST2-61	GTGGAGGTACCTATTAGATT	AATCTAATAGGTACCTCCAC
msST2-62	TGGAGGTACCTATTAGATTC	GAATCTAATAGGTACCTCCA
msST2-63	ACCTATTAGATTCAAGTCATG	CATGACTGAATCTAATAGGT
msST2-64	GATAATGGTGTTACTCCGGG	CCCGGAGTAACACCATTATC
msST2-65	ATAATGGTGTTACTCCGGGT	ACCCGGAGTAACACCATTAT
msST2-66	TAATGGTGTTACTCCGGGTG	CACCCGGAGTAACACCATT
msST2-67	AATGGTGTTACTCCGGGTGA	TCACCCGGAGTAACACCATT
msST2-68	ATGGTGTTACTCCGGGTGAC	GTCACCCGGAGTAACACCATT
msST2-69	GGTGTTACTCCGGGTGACTG	CAGTCACCCGGAGTAACACC
msST2-70	TACTCCGGGTGACTGTGGA	TCCACAGTCACCCGGAGTAA
msST2-71	TACTCCGGGTGACTGTGGAC	GTCCACAGTCACCCGGAGTA
msST2-72	ACTCCGGGTGACTGTGGACC	GGTCCACAGTCACCCGGAGT
msST2-73	CGGGTGACTGTGGACCACAG	CTGTGGTCCACAGTCACCCG

ASO	sense	antisense
msST2-74	TGAGTGTACTTTAGTTCACG	CGTGAAGTAAAGTACACTCA
msST2-75	TCACGTTTGTATTAGAATTA	TAATTCTAATACAAACGTGA
msST2-76	TTGAACAACACAGCGTATTA	TAATACGCTGTGTTGTTCAA
msST2-77	AGCGTATTAAATAAAATTCG	CGAATTTTATTTAATACGCT