

Table e-2. Power calculations

Nearest Gene	SNP	Minor Allele	Control MAF	AD risk OR	Detectable OR in PCA+Posterior AD	Observed OR in PCA+Posterior AD
<i>APOE</i>	rs429358	C	0.123	4.36	1.63	4.74 (3.37-6.67)
<i>CLU</i>	rs11136000	A	0.412	0.82	0.69	0.68 (0.49-0.93)
<i>BIN1</i>	rs744373	G	0.273	1.17	1.47	1.42 (1.03-1.96)
<i>APOE</i>	rs7412	T	0.080	0.25	0.42	0.46 (0.20-1.07)
<i>ABCA7</i>	rs3764650	C	0.078	1.23	1.78	0.98 (0.57-1.70)
<i>PICALM</i>	rs3851179	A	0.367	0.80	0.68	1.23 (0.90-1.68)
<i>CD2AP</i>	rs9349407	C	0.267	1.11	1.48	0.72 (0.50-1.05)
<i>CR1</i>	rs3818361	A	0.194	1.15	1.52	1.19 (0.82-1.71)
<i>MS4A6A</i>	rs610932	A	0.434	0.87	0.69	0.88 (0.64-1.20)
<i>CD33</i>	rs3865444	A	0.318	0.92	0.66	0.88 (0.64-1.21)
<i>EPHA1</i>	rs11767557	G	0.203	0.87	0.61	0.93 (0.63-1.38)

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Given the minor allele frequencies (MAF) of the tested variants in controls and published OR estimates for AD risk, we estimated the effect sizes that would be detectable in our Combined Case- Control cohort, with 80% power and $\alpha=0.05$. Observed OR estimates in our combined cohort is depicted in this table for comparison.