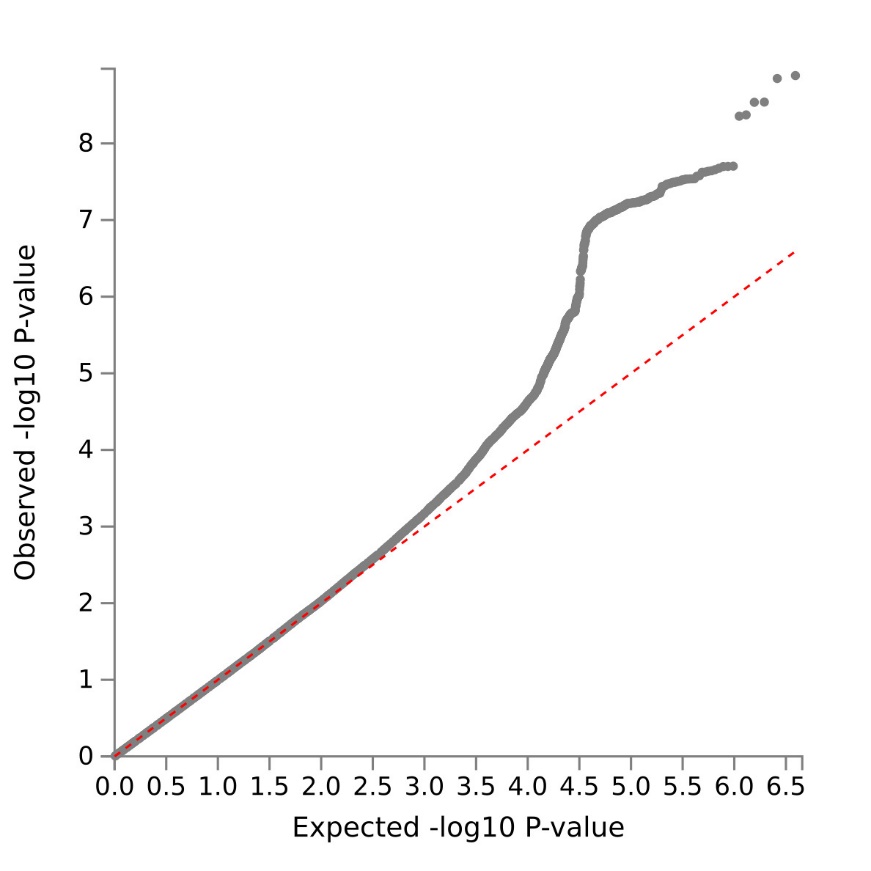
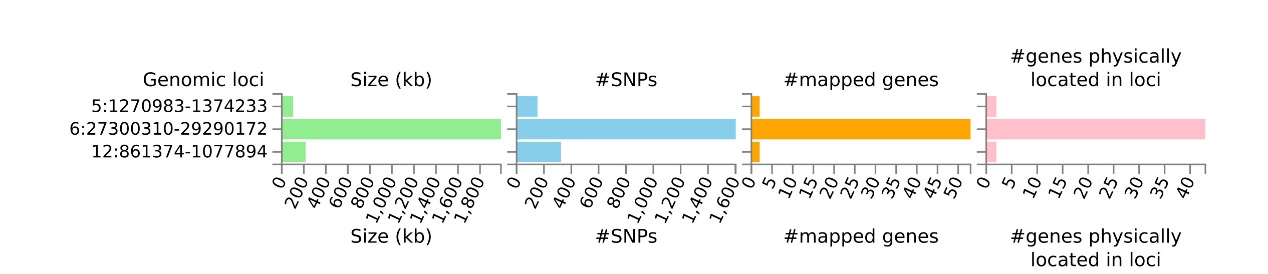
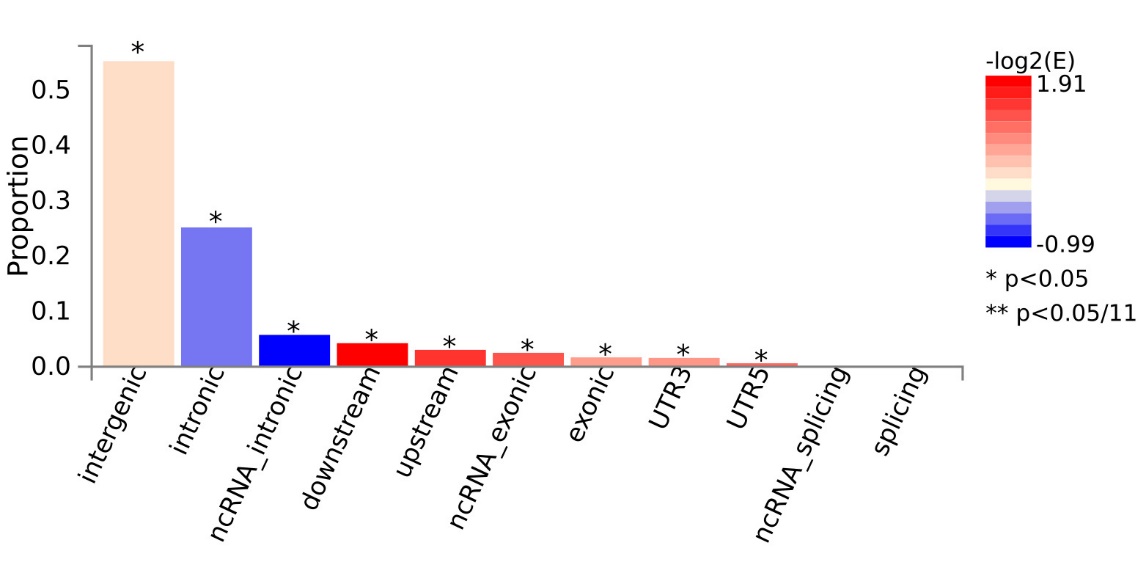
**Fig S1.** QQ plot for pleiotropy analysis.



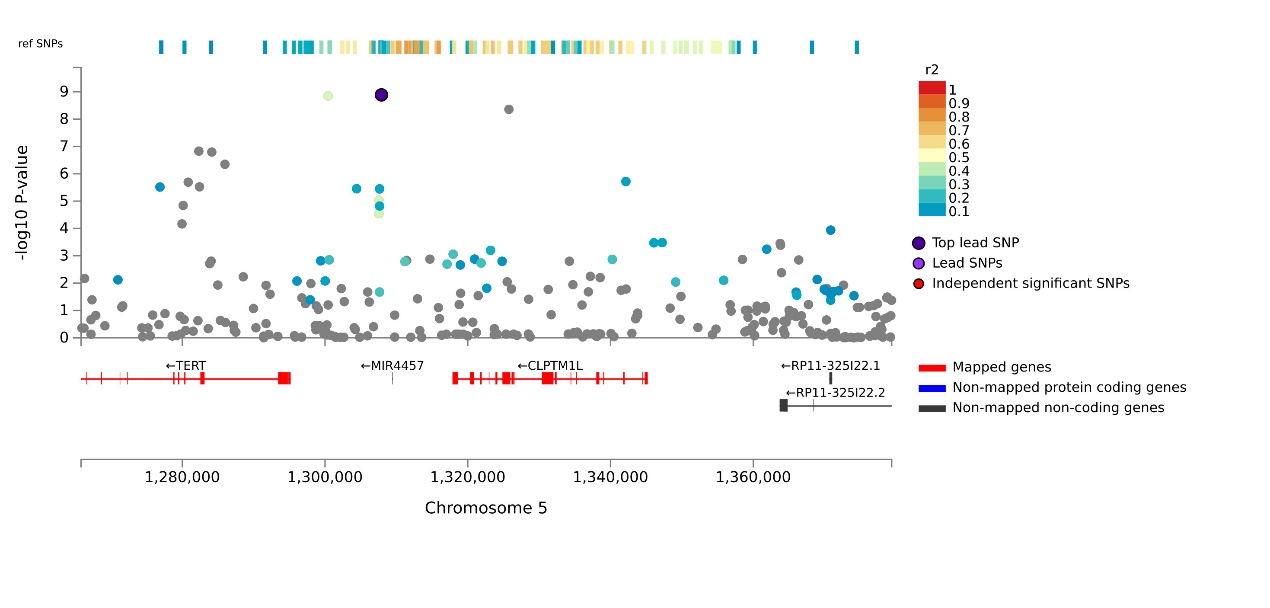
**Fig S2.** Summary of basic information for each genome risk locus.



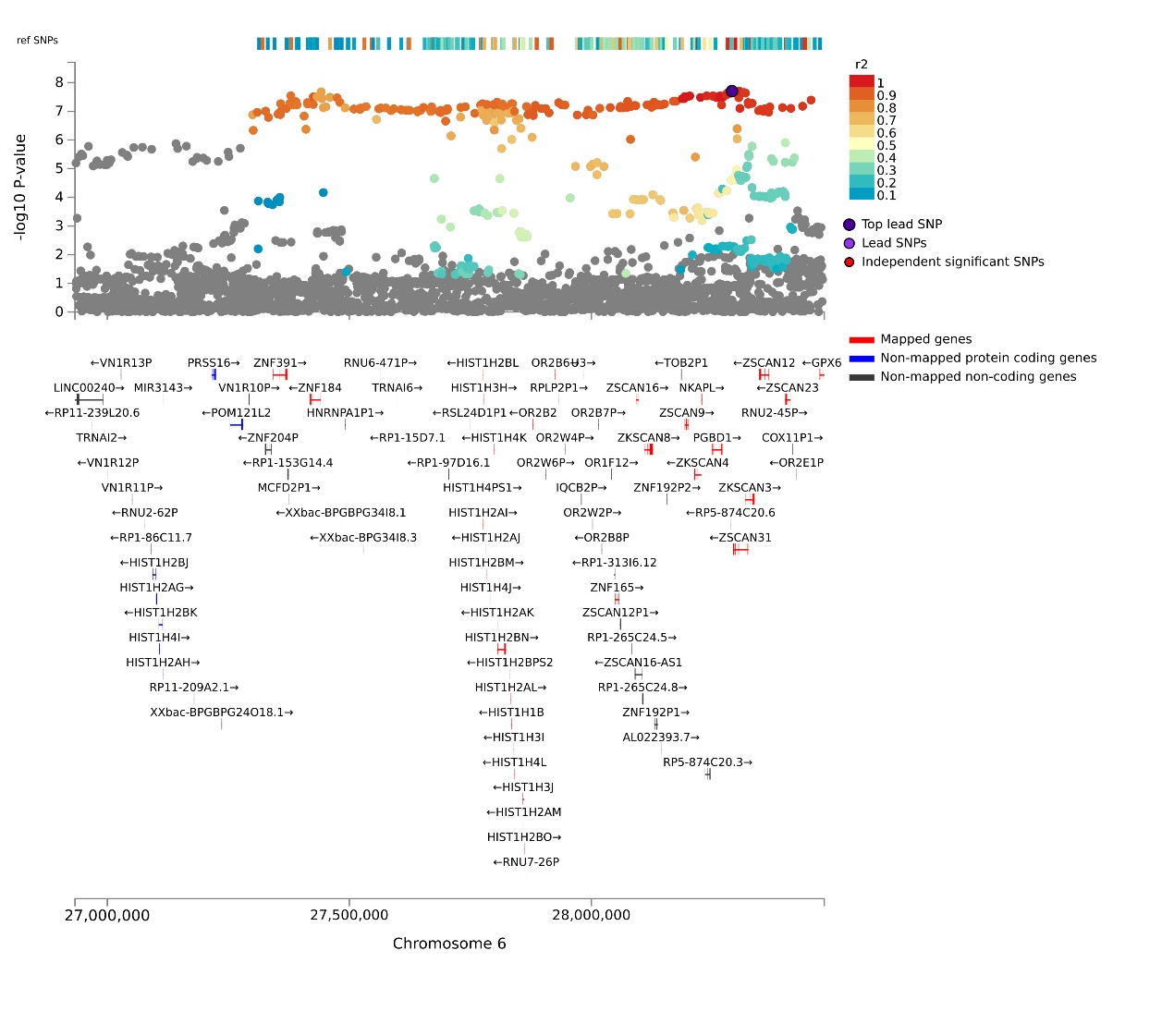
**Fig S3.** Functional impact of pleiotropic SNPs on genes.



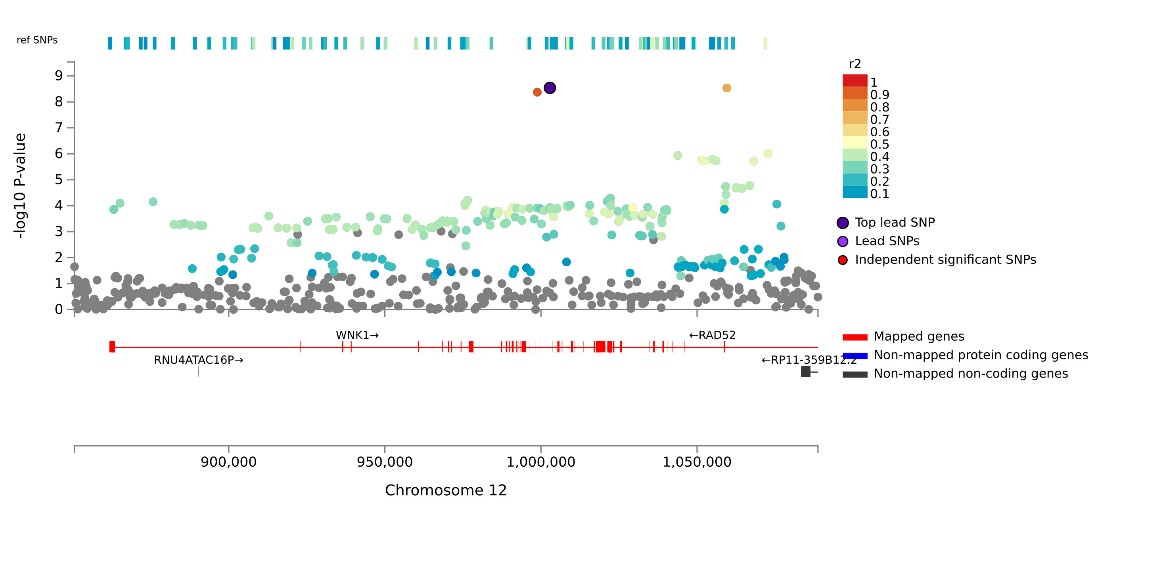
**Fig S4.** Regional plot for locus (5:1307910:A:G).

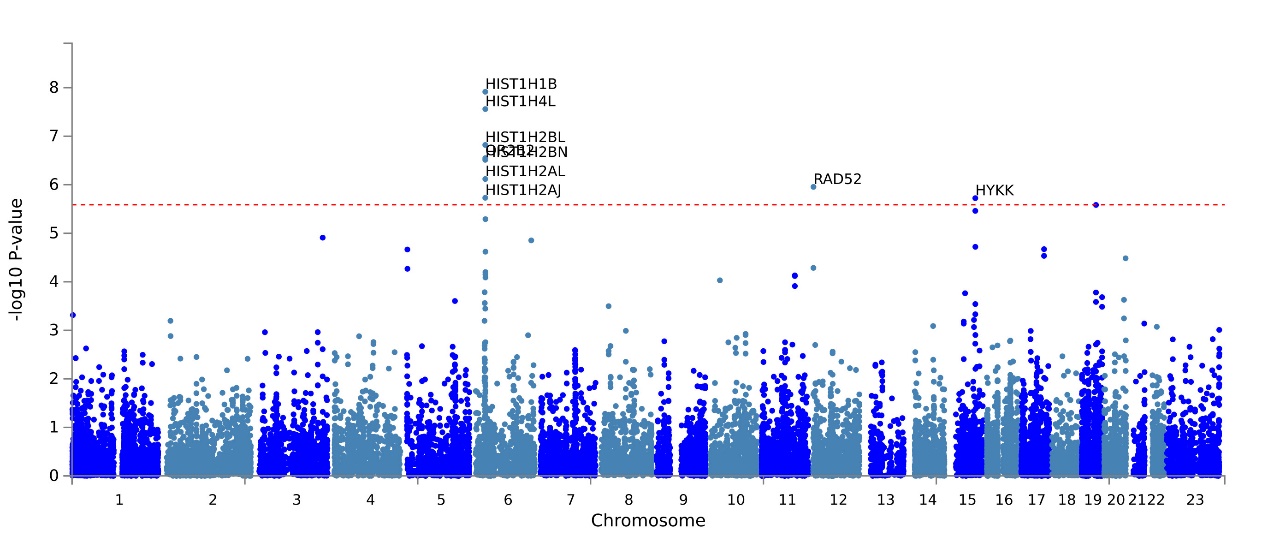


**Fig S5.** Regional plot for locus (6:28290328:G:T).

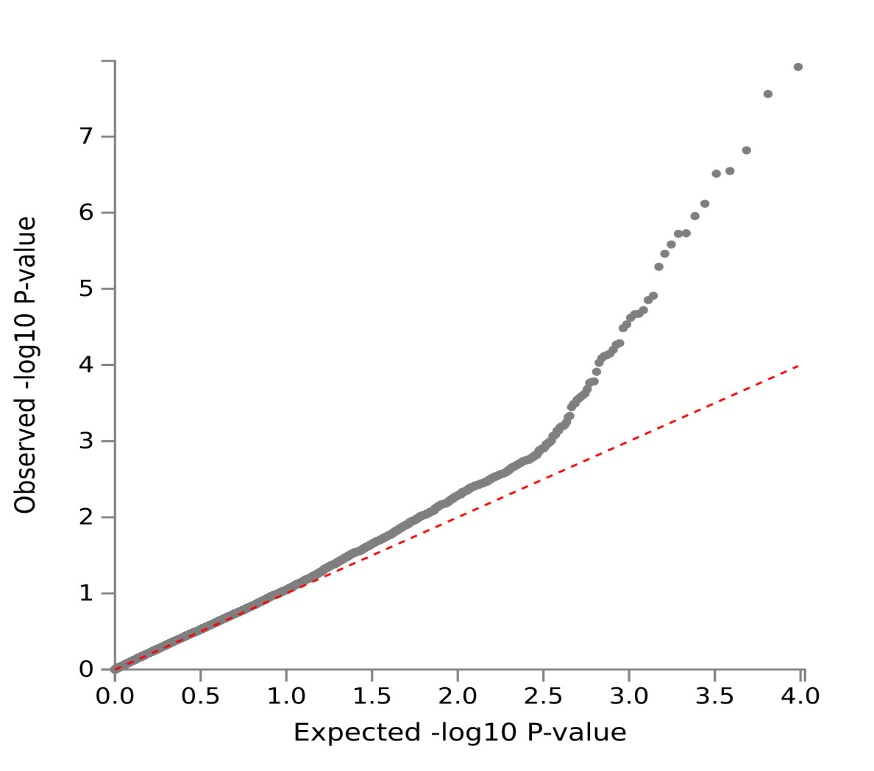


**Fig S6.** Regional plot for locus (12:1002857:C:T).

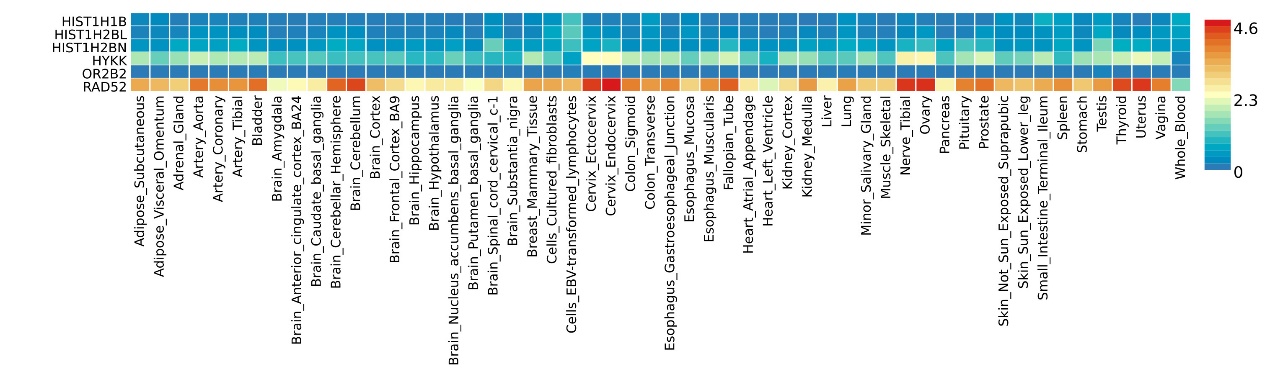
Figure **Fig S7.** Manhattan plot for MAGMA gene analysis.



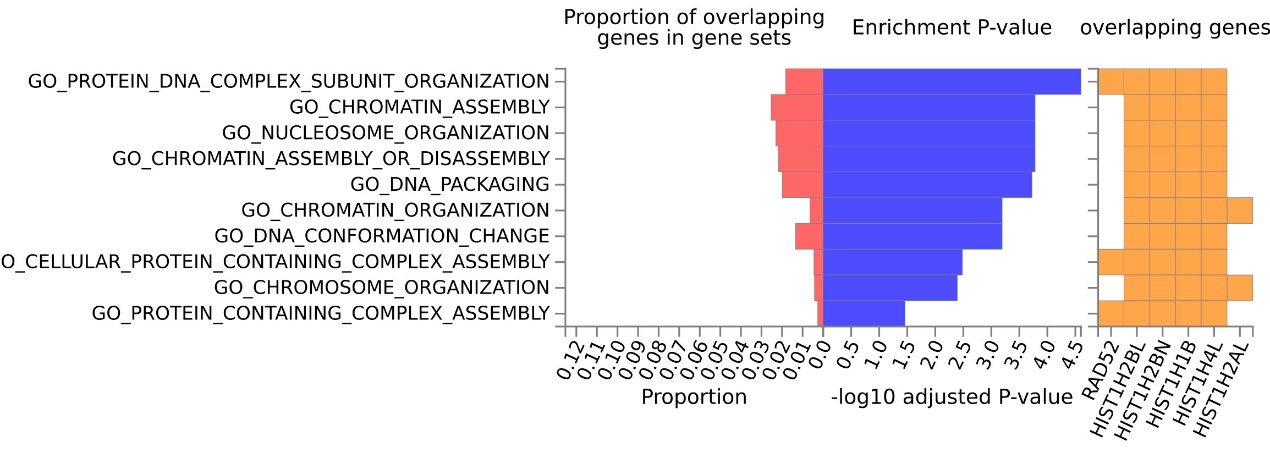
**Fig S8.** QQ plot for MAGMA gene analysis.



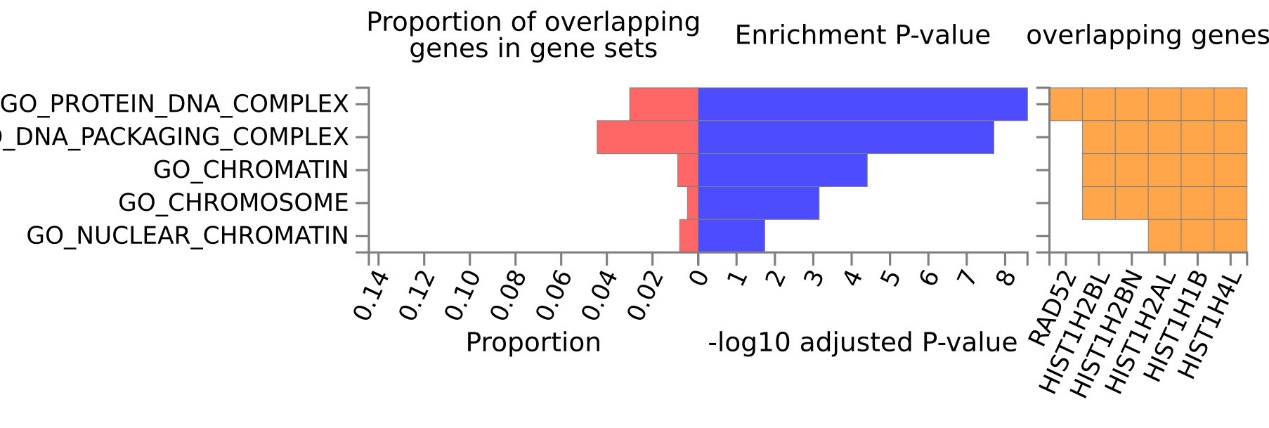
**Fig S9.** Expression profile of pleiotropic MAGMA genes in different tissues.



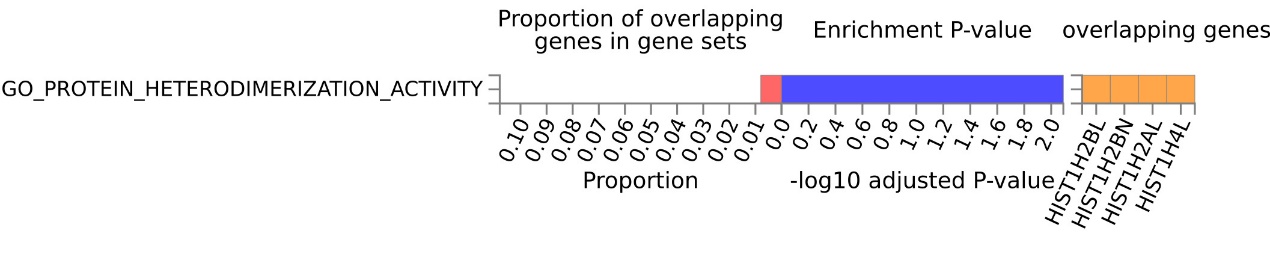
**Fig S10.** Pathway enrichment of pleiotropic MAGMA genes (GO:BP).



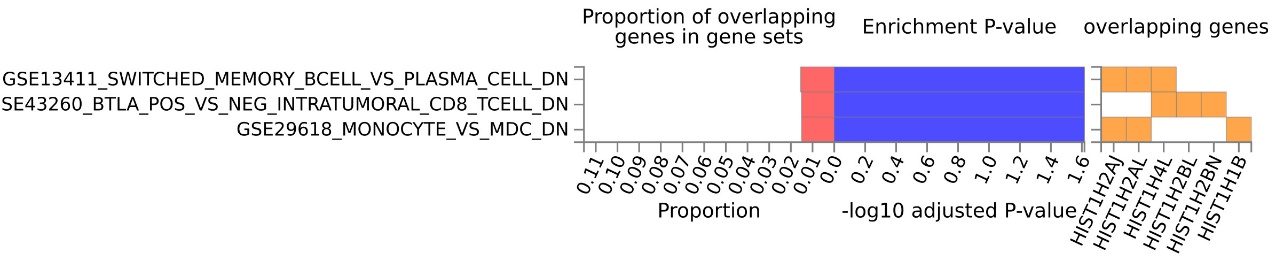
**Fig S11.** Pathway enrichment of pleiotropic MAGMA genes (GO:CC).



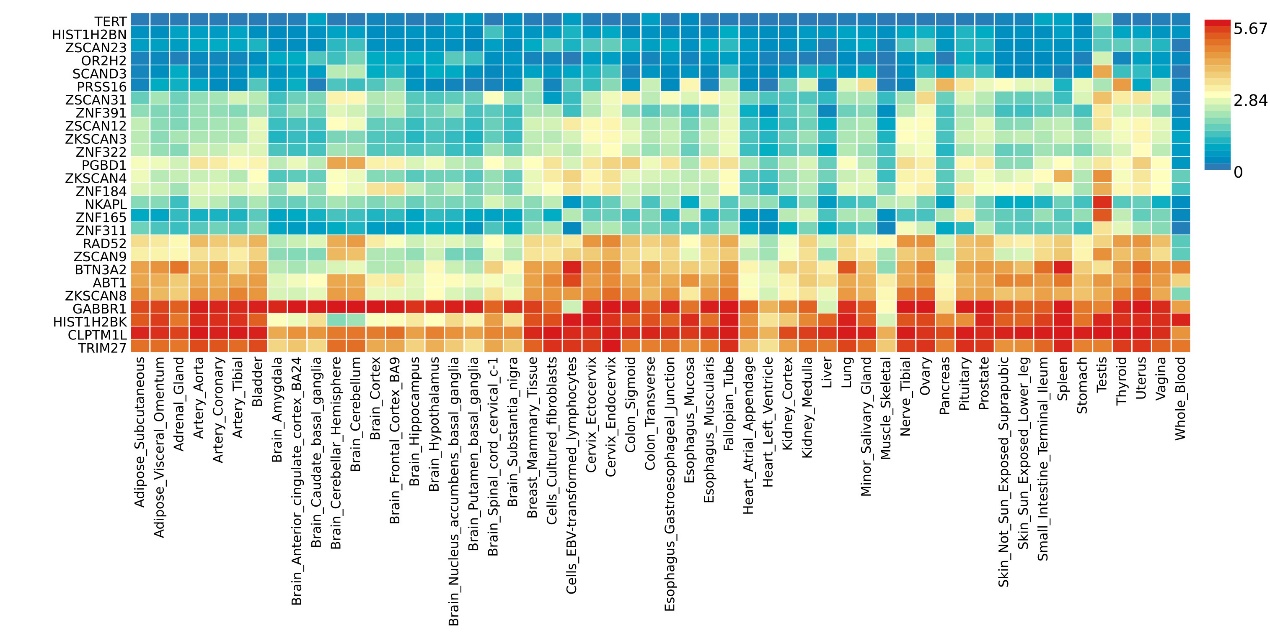
**Fig S12.** Pathway enrichment of pleiotropic MAGMA genes (GO:MF).



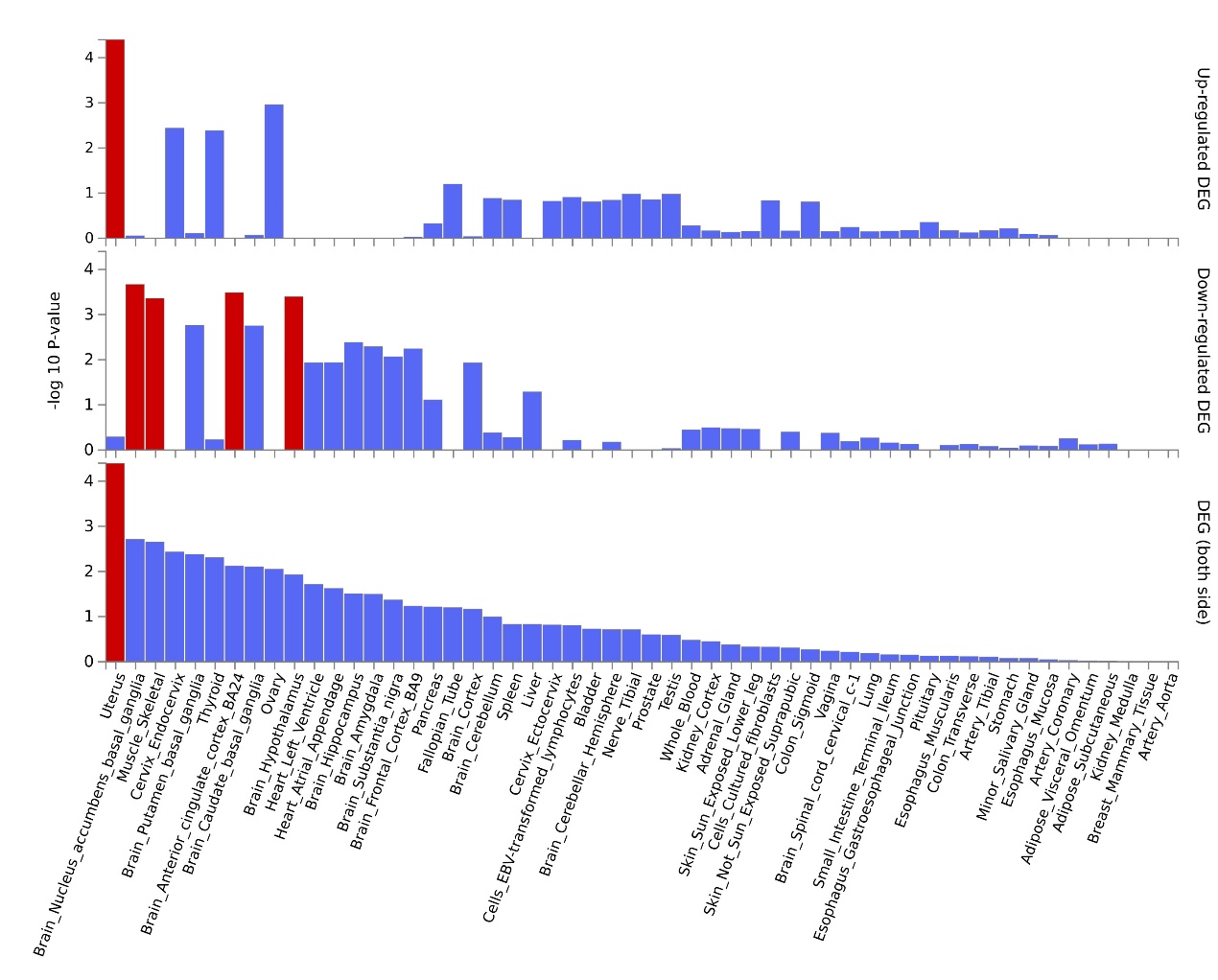
**Fig S13.** Pathway enrichment of pleiotropic MAGMA genes (immune-related pathways).



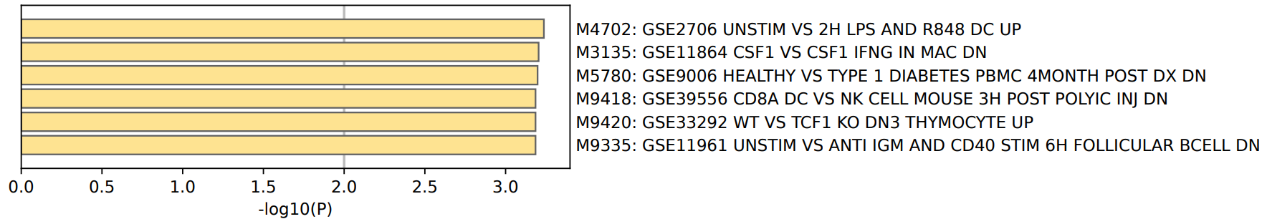
**Fig S14.** Expression profile of pleiotropic eQTL genes in different tissues.



**Fig S15.** Tissue-specific enrichment analysis based on pleiotropic eQTL genes.



**Fig S16.** Pathway enrichment of pleiotropic eQTL genes.



**Fig S17.** Protein-protein interaction (PPI) network analysis of pleiotropic eQTL genes.



**Fig S18.** Genetic Loci on Chromosomes.

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**Fig S19.** ssGSEA on each KEGG pathway.

