

Supporting Information of

Gene-environment interactions and gene-gene interactions on two biological age measures: evidence from Taiwan Biobank participants

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Short title: Gene-environment interaction on aging

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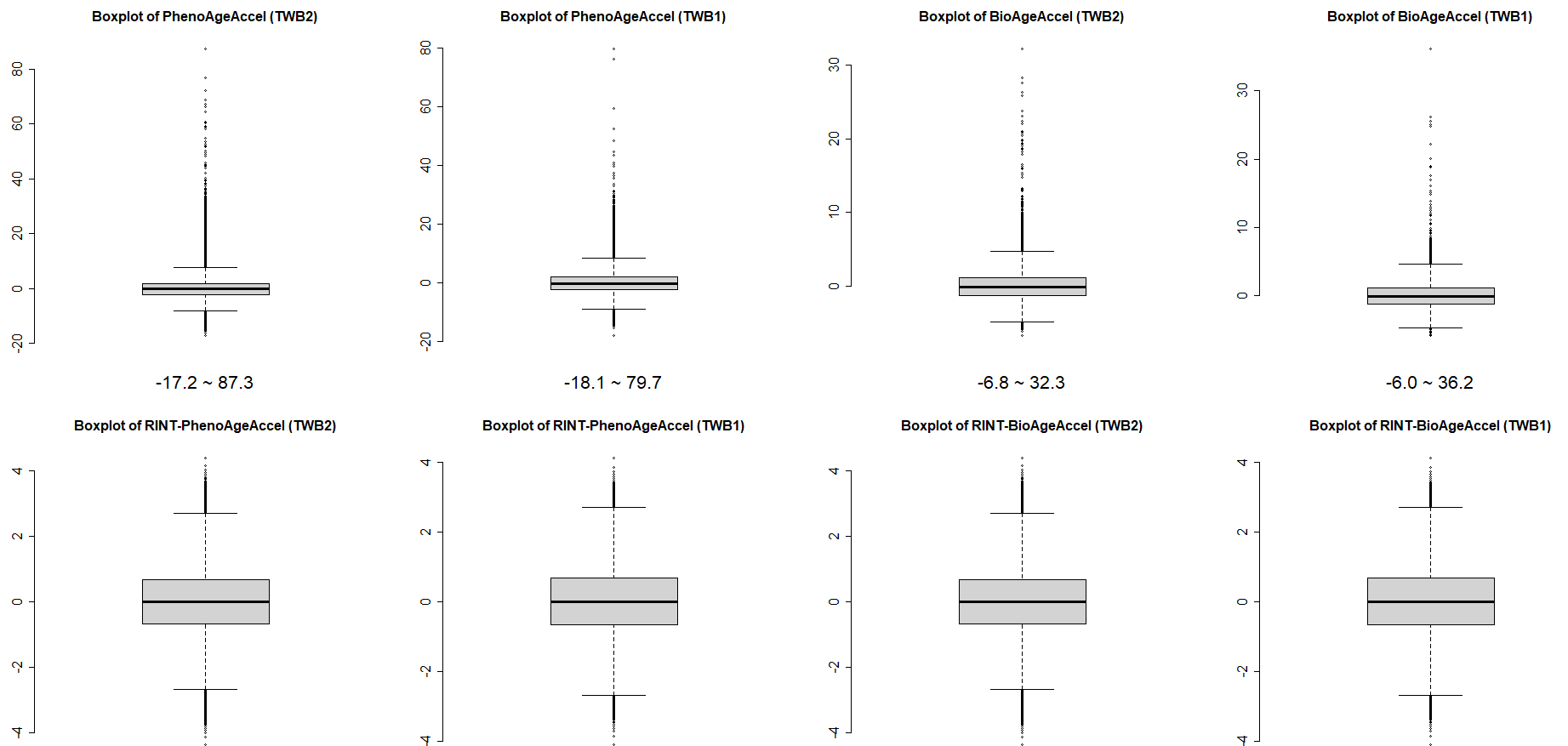


Figure S1. Boxplots of PhenoAgeAccel (age-adjusted PhenoAge) and BioAgeAccel (age-adjusted BioAge)

The top row presents the boxplots of PhenoAgeAccel (age-adjusted PhenoAge) and BioAgeAccel (age-adjusted BioAge). The numbers shown under each plot mark the range of PhenoAgeAccel and BioAgeAccel (minimum ~ maximum). In contrast, the bottom row shows the “rank-based inverse normal transformation” (RINT) of PhenoAgeAccel and BioAgeAccel, respectively.

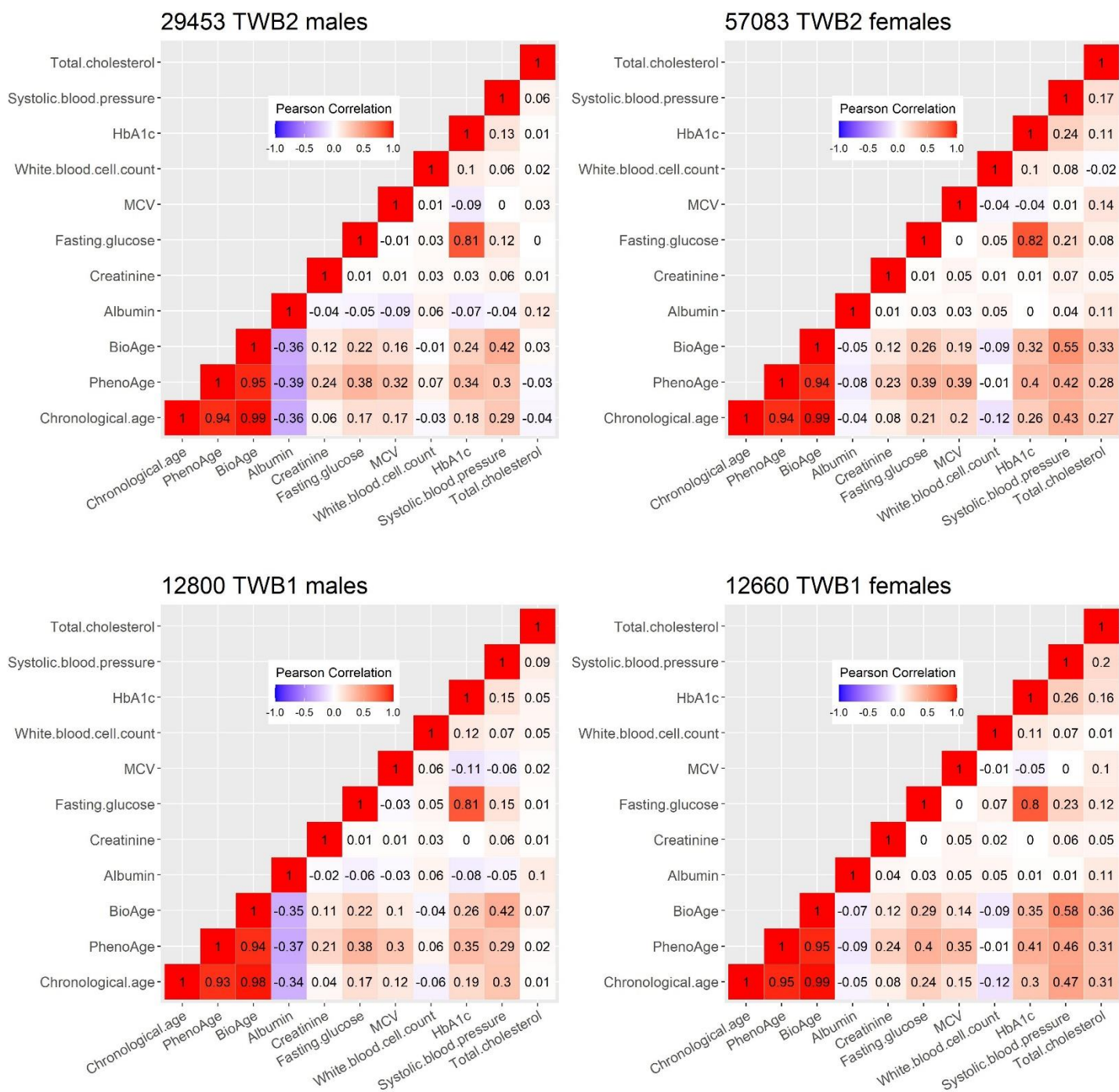


Figure S2. The Pearson’s correlation coefficients between PhenoAge, BioAge, chronological age, and the eight biomarkers constituting PhenoAge or BioAge

The correlation plots were stratified by the discovery (TWB2)/replication (TWB1) cohorts and sex.

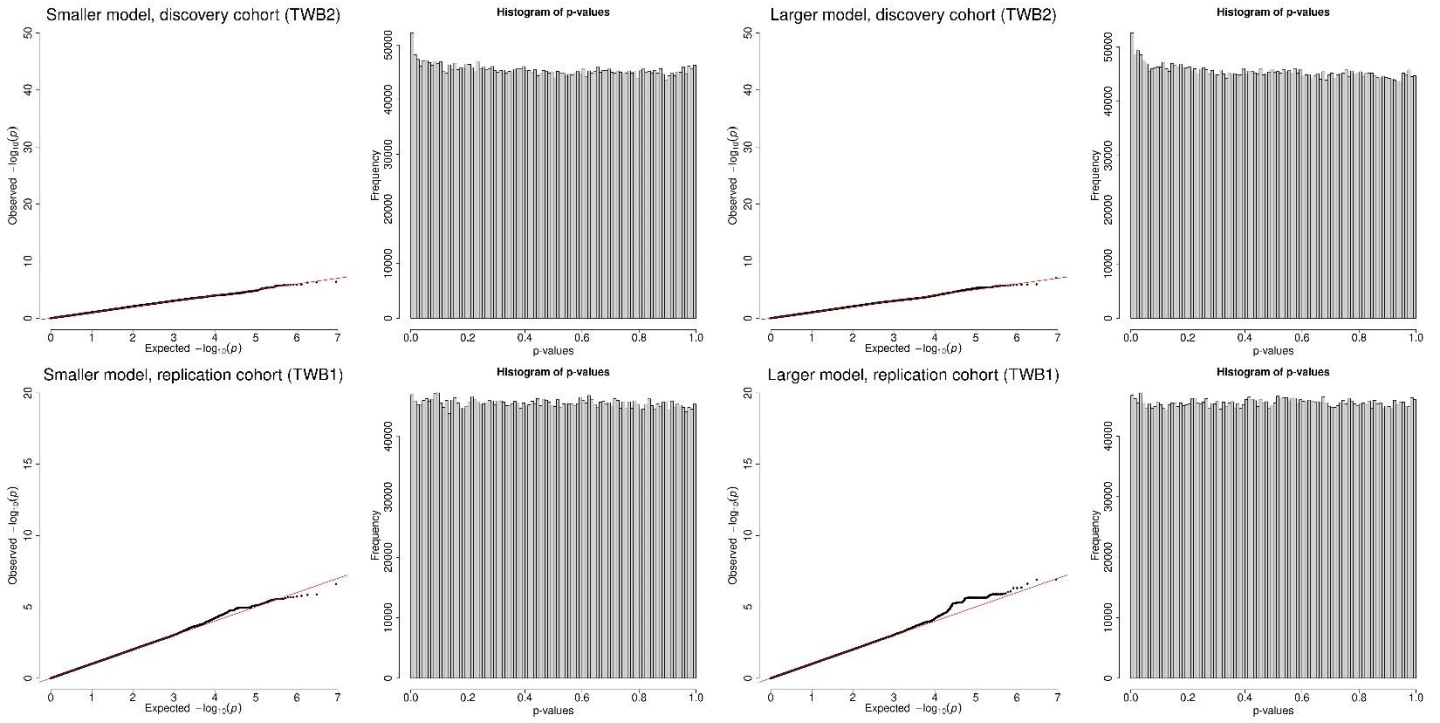


Figure S3. [BioAgeAccel] The quantile-quantile (Q-Q) plots and histograms of the vQTLs' p -values.

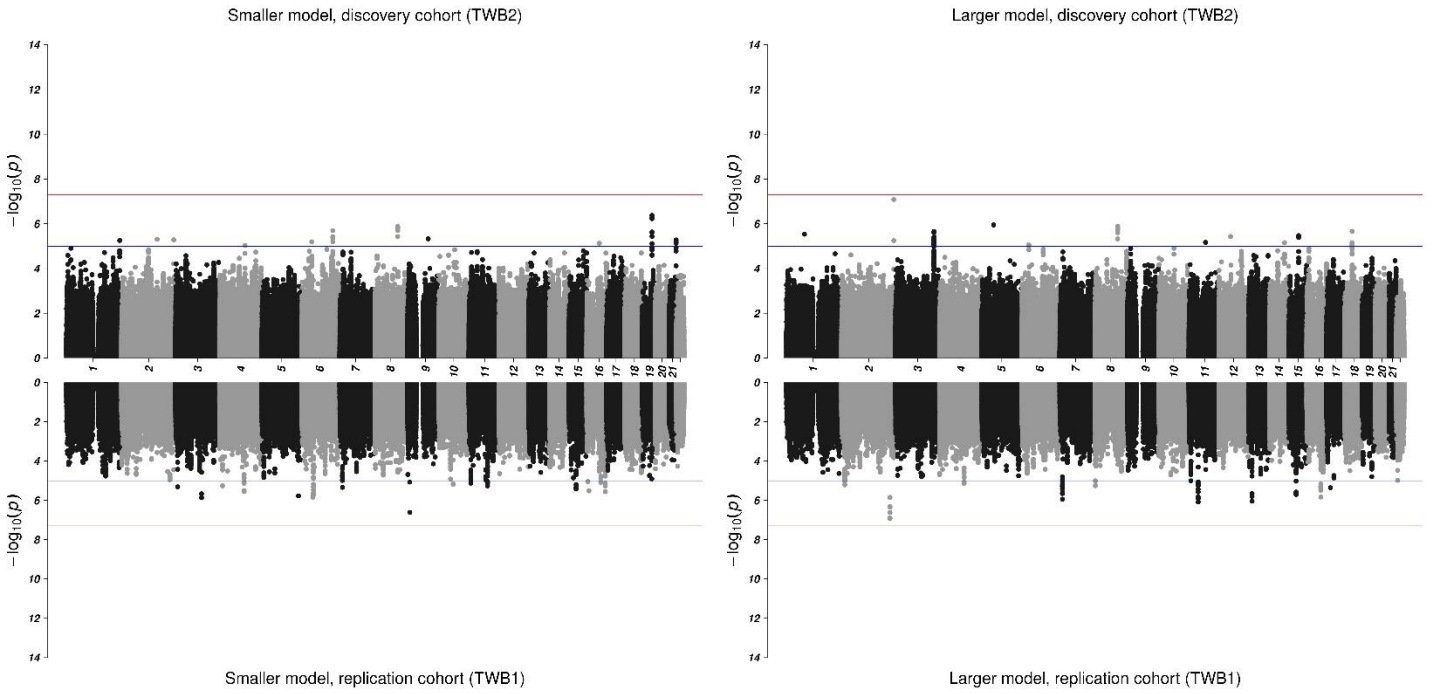


Figure S4. [BioAgeAccel] The Miami plots for the vQTL analyses.

The left and right columns show the results from the smaller and larger models, respectively.

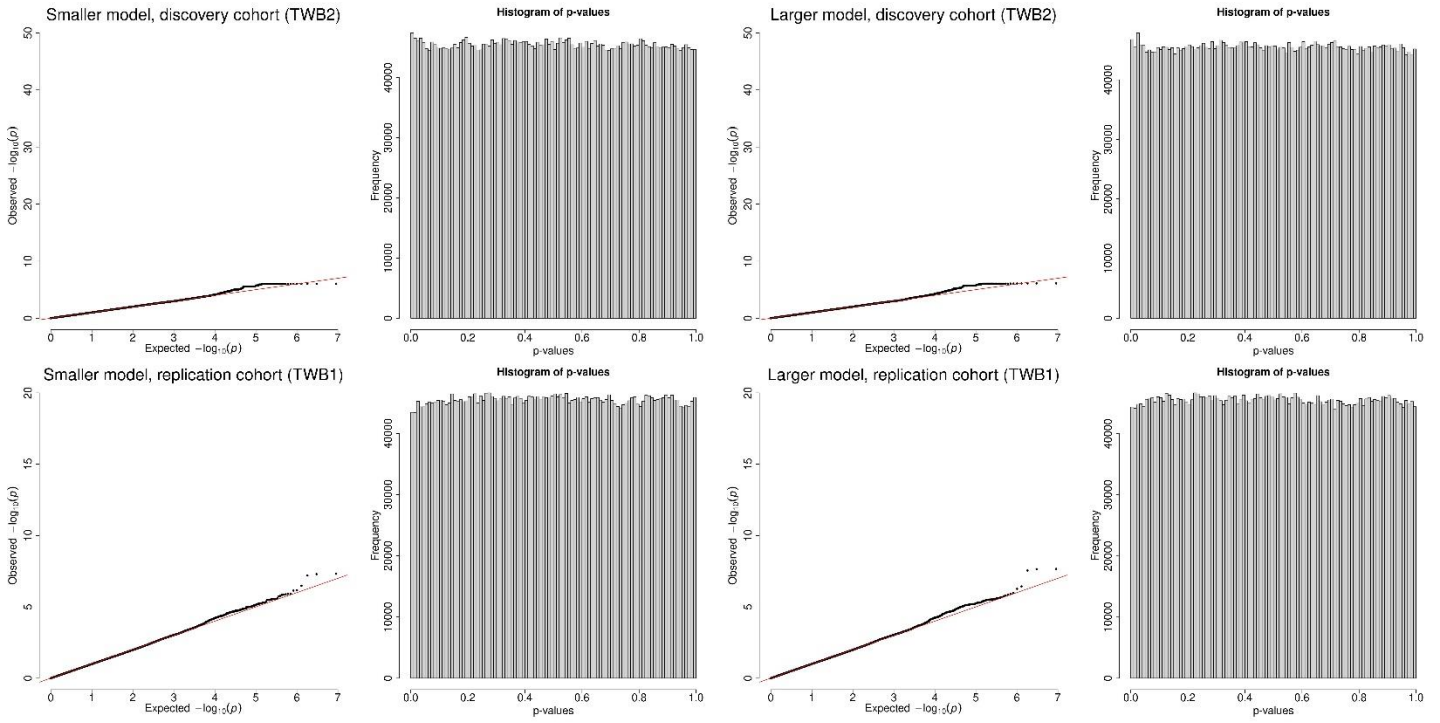


Figure S5. [Albumin] The quantile-quantile (Q-Q) plots and histograms of the vQTLs' p -values.

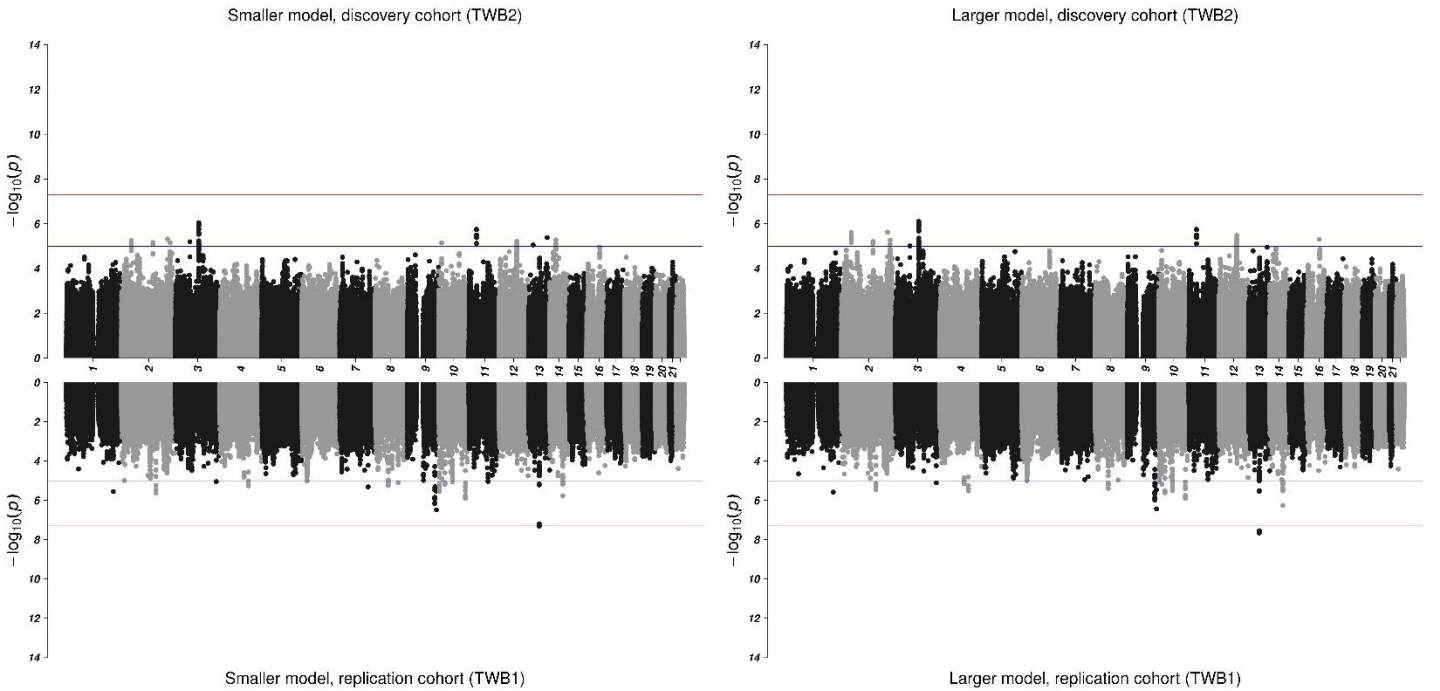


Figure S6. [Albumin] The Miami plots for the vQTL analyses.

The left and right columns show the results from the smaller and larger models, respectively.

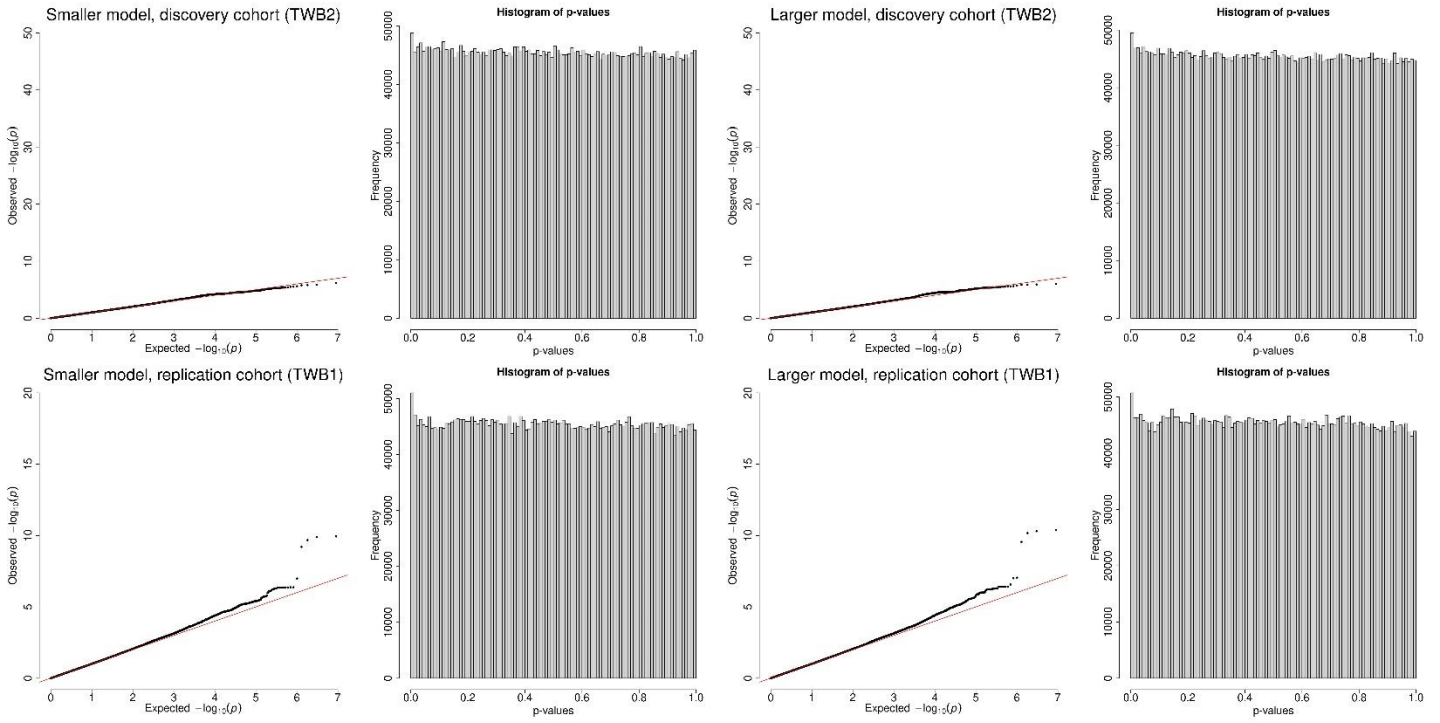


Figure S7. [Creatinine] The quantile-quantile (Q-Q) plots and histograms of the vQTLs' p -values.

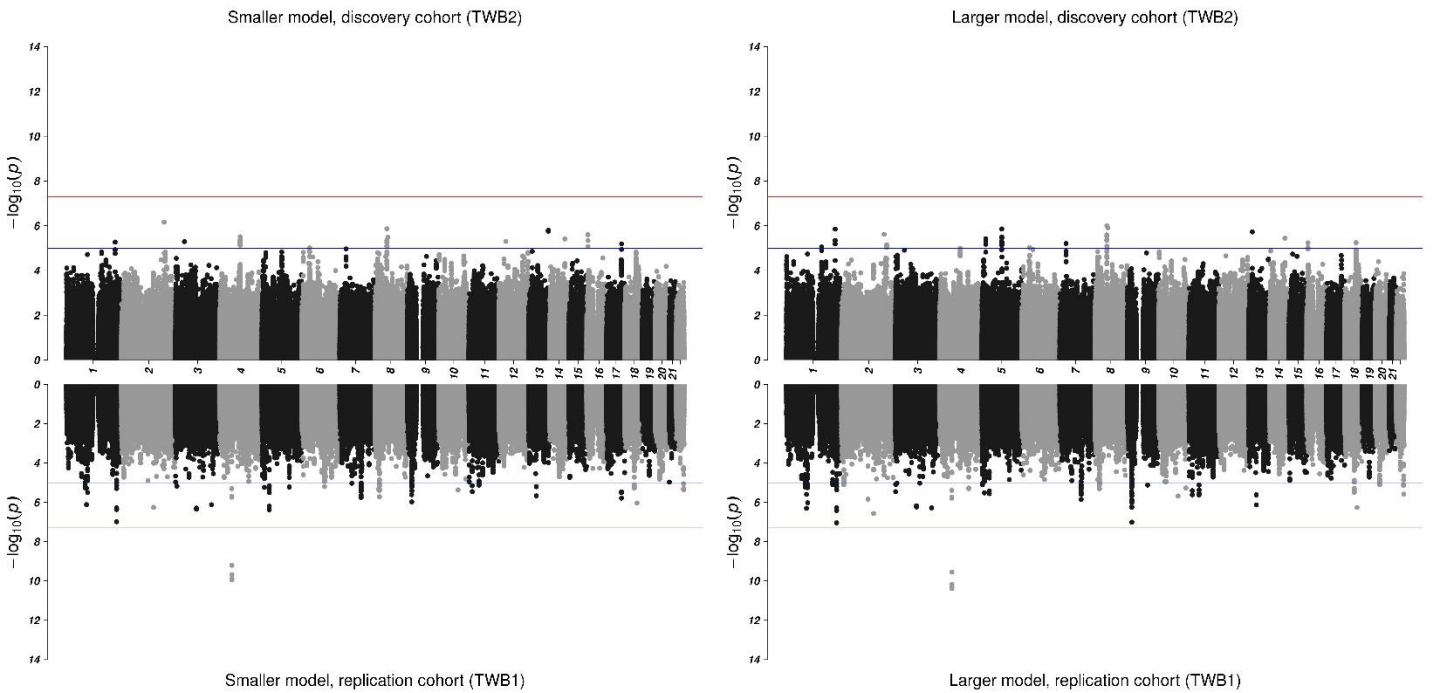


Figure S8. [Creatinine] The Miami plots for the vQTL analyses.

The left and right columns show the results from the smaller and larger models, respectively.

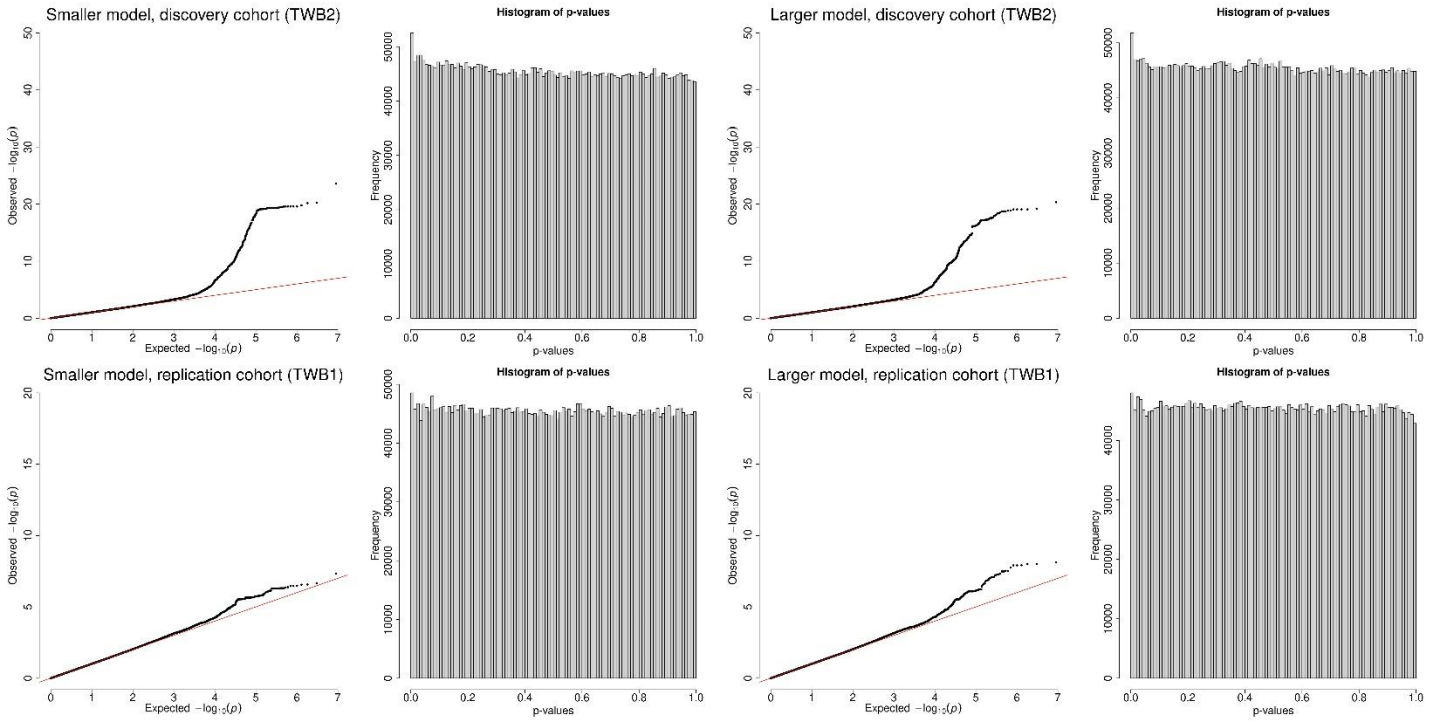


Figure S9. [Fasting glucose] The quantile-quantile (Q-Q) plots and histograms of the vQTLs' p -values.

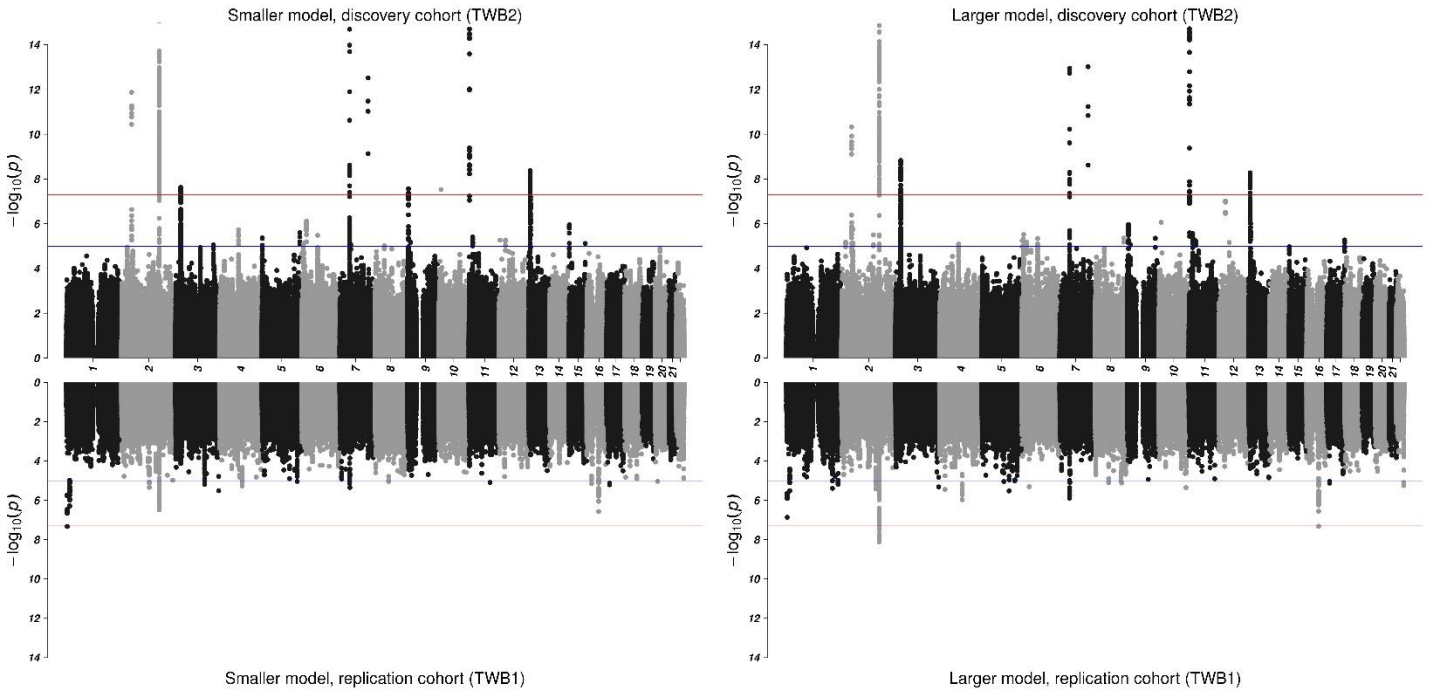


Figure S10. [Fasting glucose] The Miami plots for the vQTL analyses.

The left and right columns show the results from the smaller and larger models, respectively.

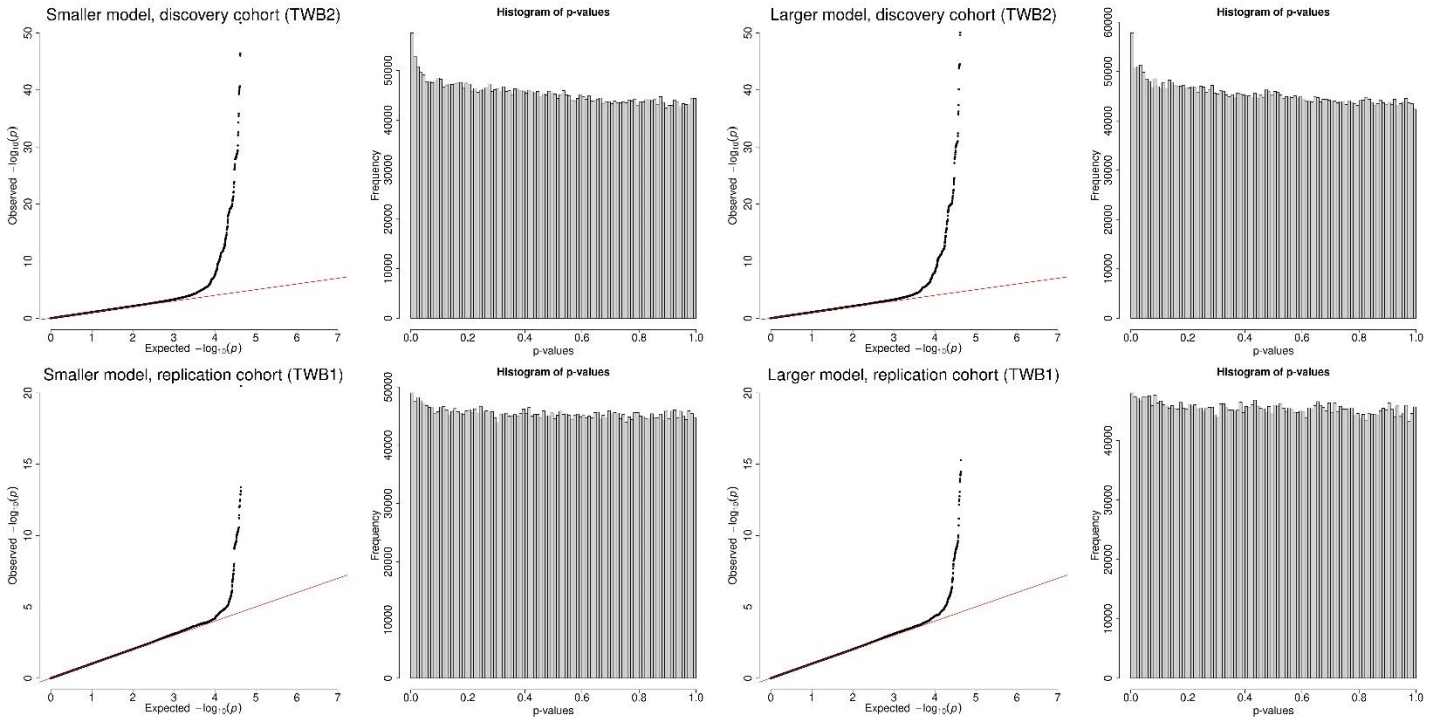


Figure S11. [Mean corpuscular volume] The quantile-quantile (Q-Q) plots and histograms of the vQTLs' p -values.

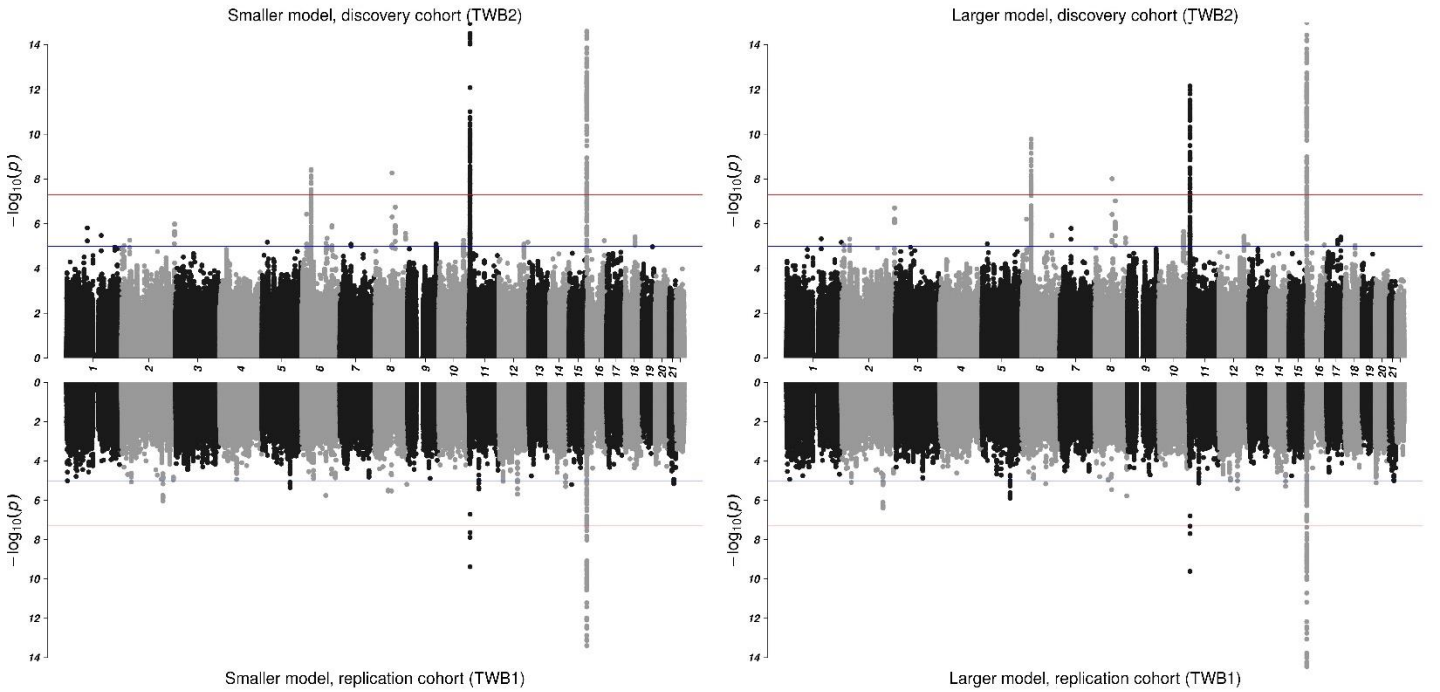


Figure S12. [Mean corpuscular volume] The Miami plots for the vQTL analyses.

The left and right columns show the results from the smaller and larger models, respectively.

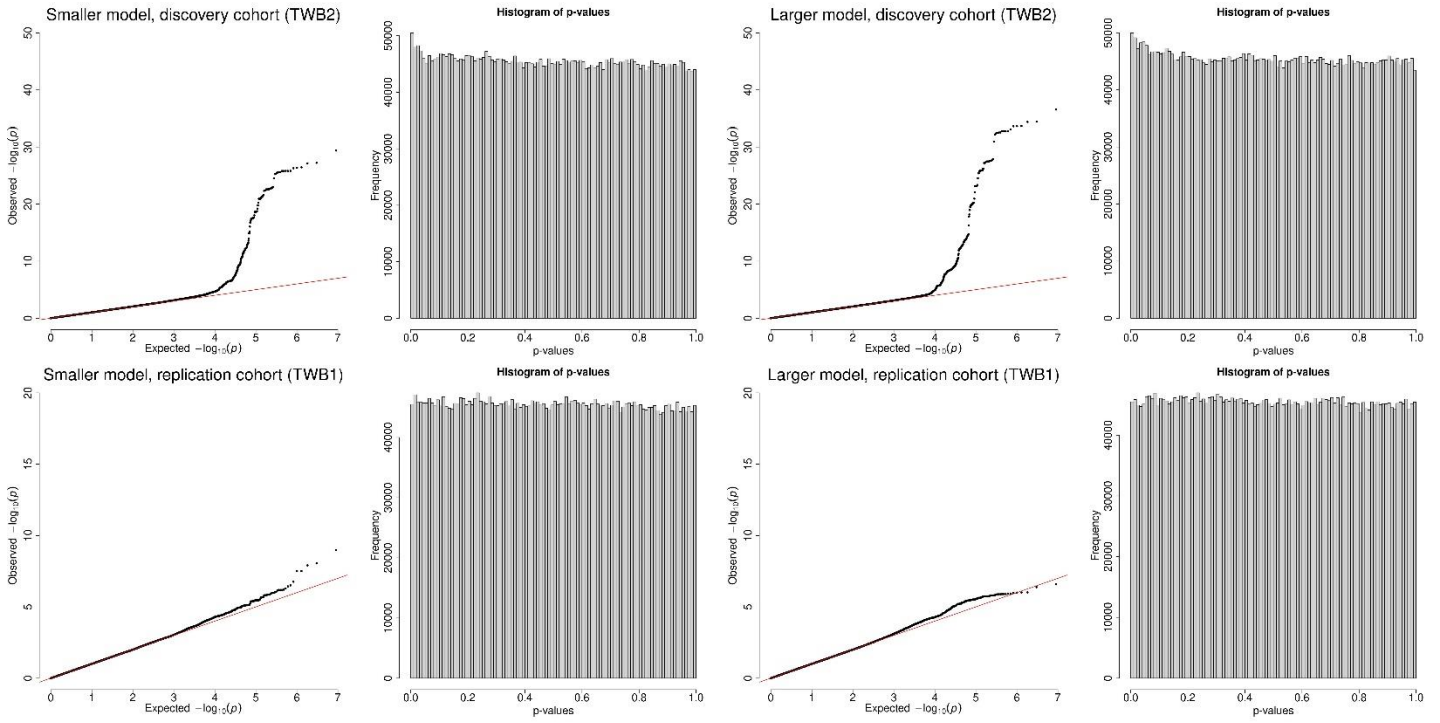


Figure S13. [White blood cell count] The quantile-quantile (Q-Q) plots and histograms of the vQTLs' p -values.

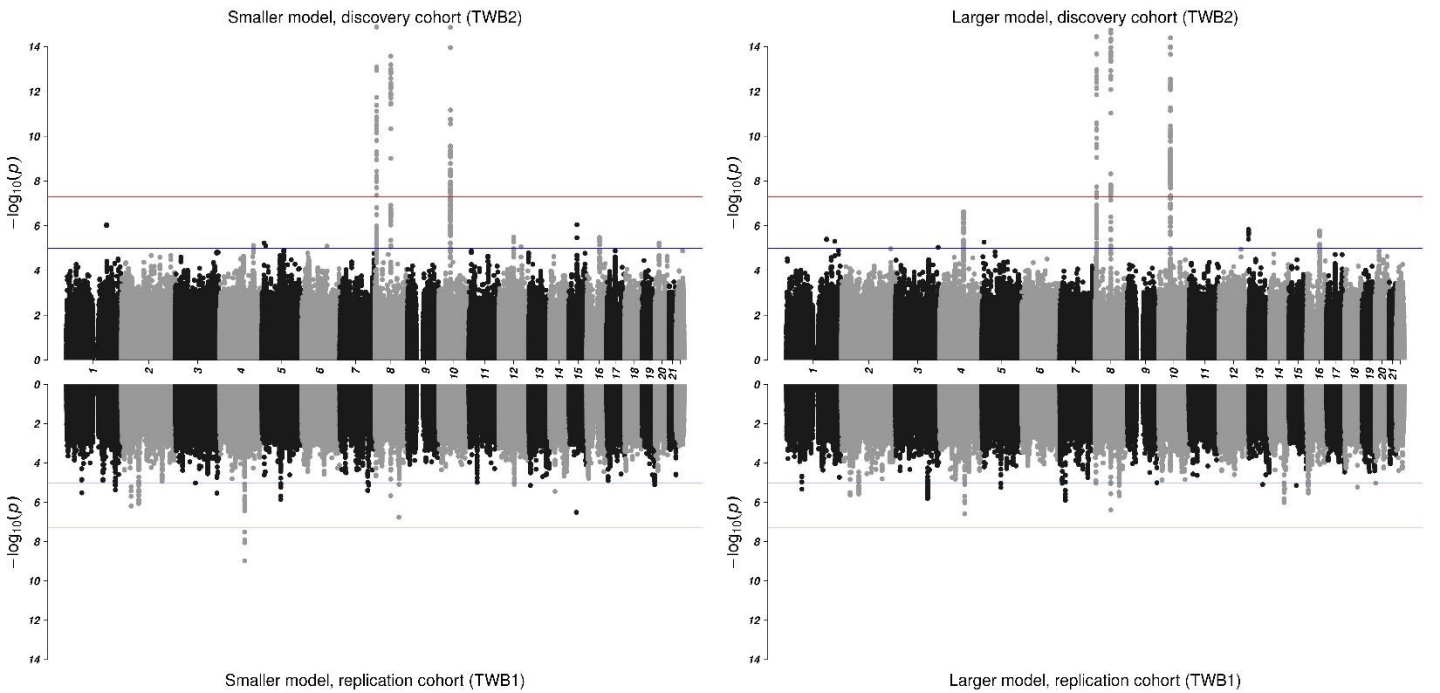


Figure S14. [White blood cell count] The Miami plots for the vQTL analyses.

The left and right columns show the results from the smaller and larger models, respectively.

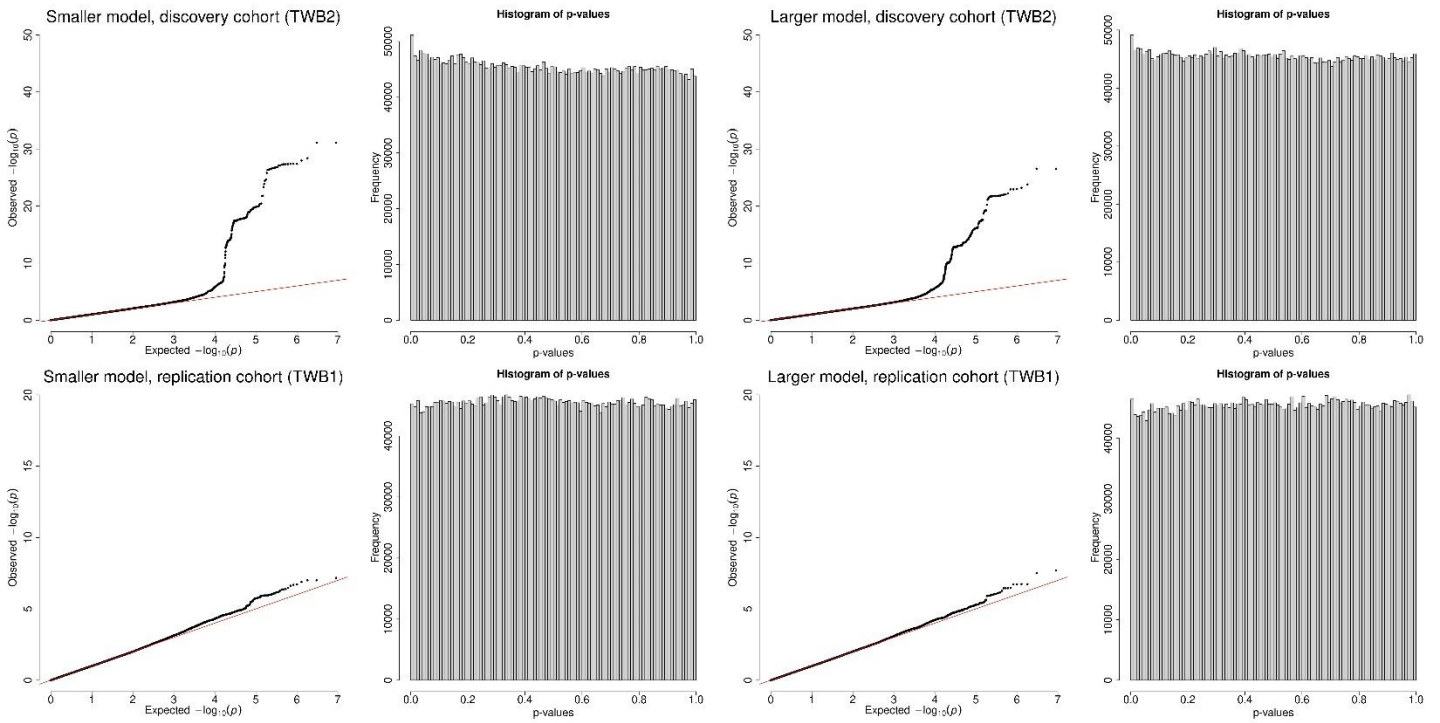


Figure S15. [HbA1c] The quantile-quantile (Q-Q) plots and histograms of the vQTLs' p -values.

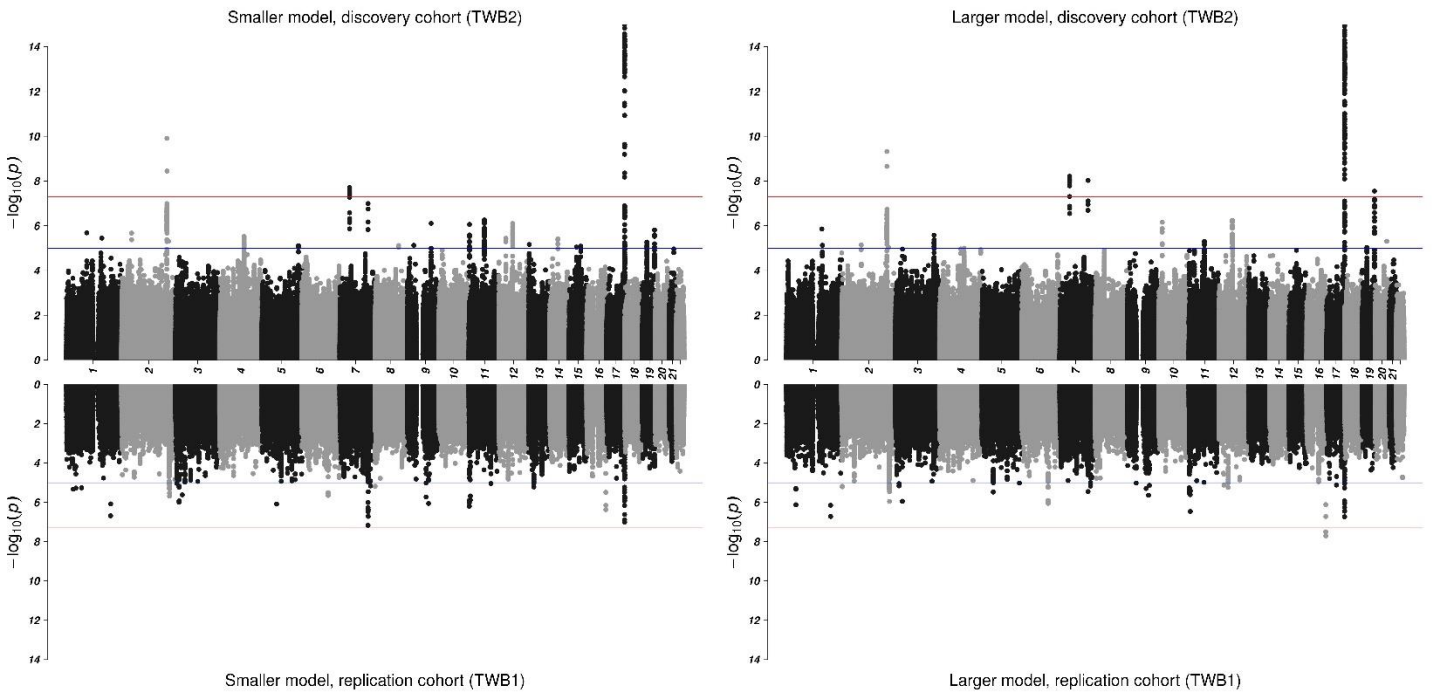


Figure S16. [HbA1c] The Miami plots for the vQTL analyses.

The left and right columns show the results from the smaller and larger models, respectively.

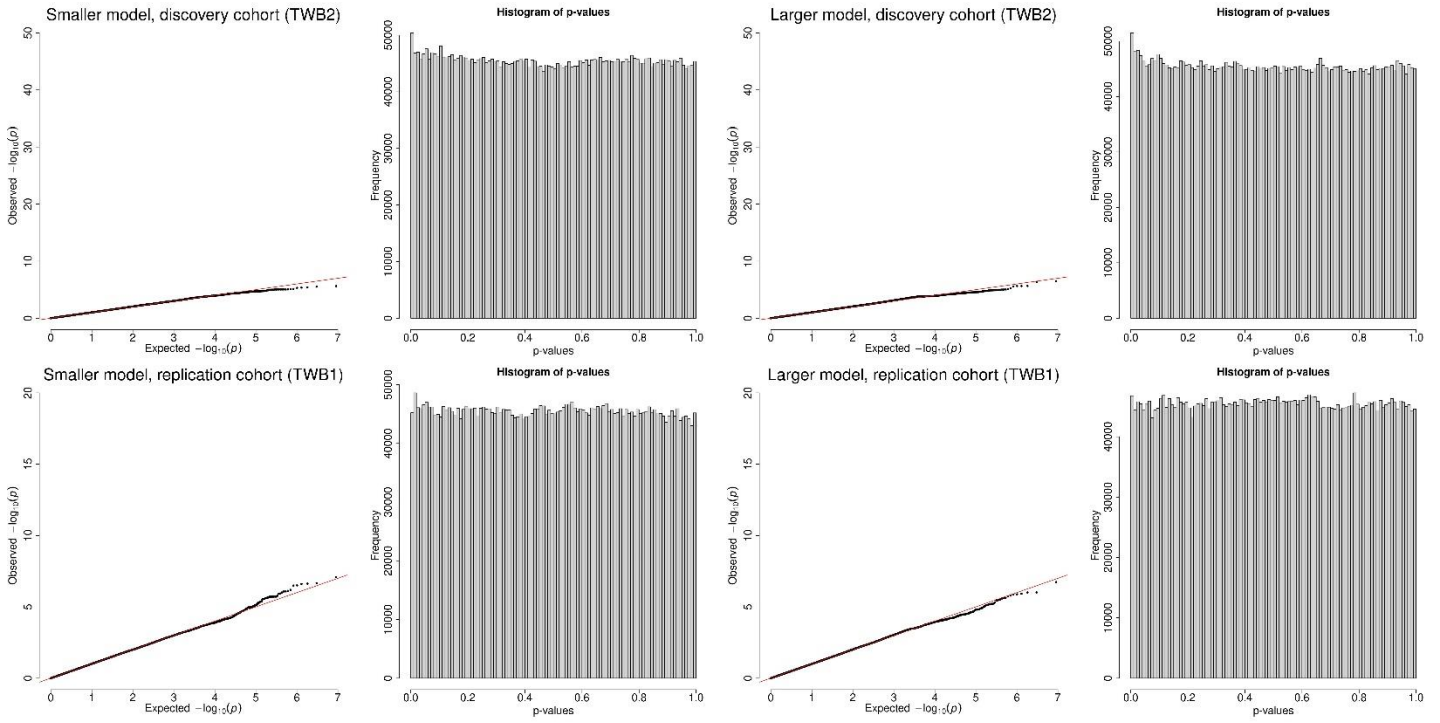


Figure S17. [Systolic blood pressure] The quantile-quantile (Q-Q) plots and histograms of the vQTLs' p -values.

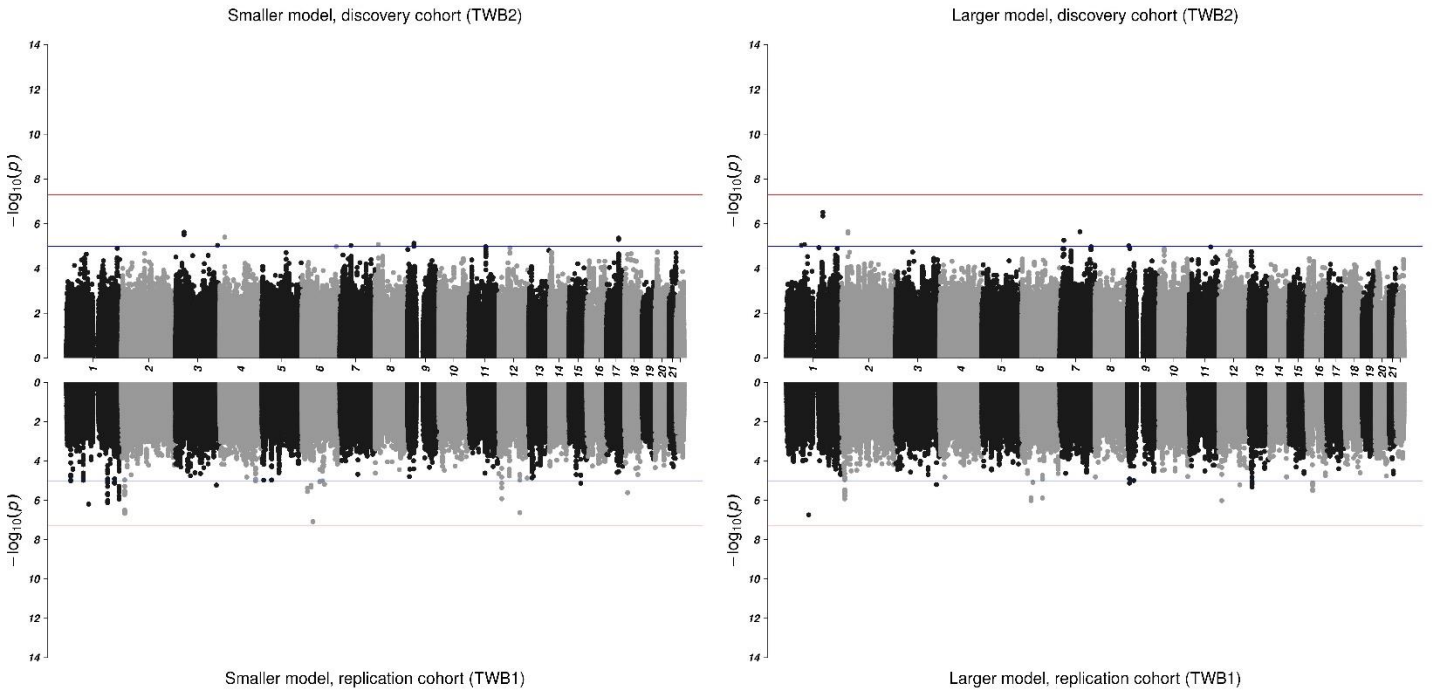


Figure S18. [Systolic blood pressure] The Miami plots for the vQTL analyses.

The left and right columns show the results from the smaller and larger models, respectively.

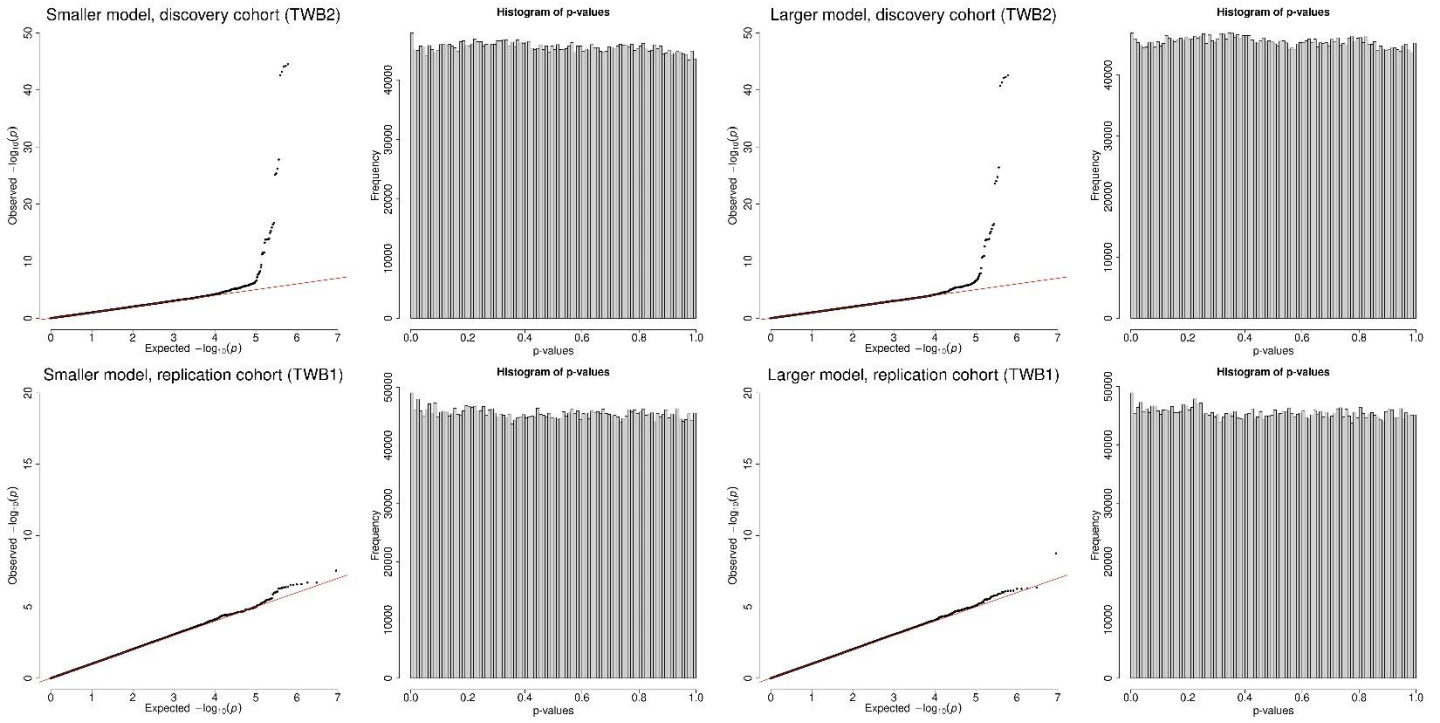


Figure S19. [Total cholesterol] The quantile-quantile (Q-Q) plots and histograms of the vQTLs' p -values.

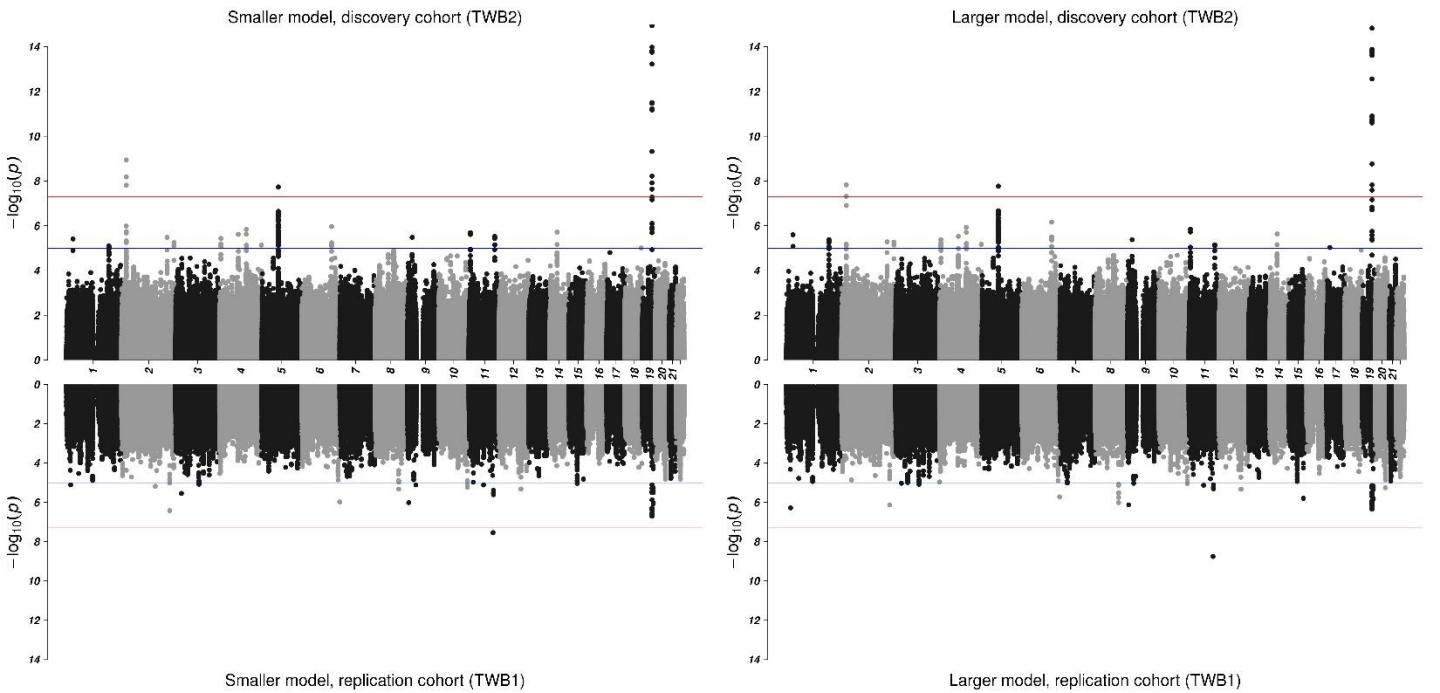


Figure S20. [Total cholesterol] The Miami plots for the vQTL analyses.

The left and right columns show the results from the smaller and larger models, respectively.