

Description of Additional Supplementary Files

File name: Supplementary Data 1

Description: rs3782735 association with selected outcome traits based on meta-analysis results in MESA

File name: Supplementary Data 2

Description: Summary of co-expression with LAG3 for proteins identified at FDR < 0.05 at both MESA Exams 1 and 5

File name: Supplementary Data 3

Description: Summary of co-expression with LAG3 in FHS for proteins identified at FDR < 0.05 at both MESA Exams 1 and 5 and demonstrating Bonferroni-corrected statistical significance in Framingham ($P < 0.05/603$)

File name: Supplementary Data 4

Description: Summary of co-expression with LAG3 for proteins identified at FDR < 0.05 in FHS

File name: Supplementary Data 5

Description: Summary of co-expression with LAG3 at MESA Exams 1 and 5 for proteins identified at FDR < 0.05 in FHS and demonstrating Bonferroni-corrected statistical significance in both MESA Exams 1 and 5 (both $P < 0.05/657$)

File name: Supplementary Data 6

Description: 183 LAG3 associated proteins that overlapped among those discovered in MESA Exams 1 and 5 and validated in FHS, and discovered in FHS and validated in MESA Exams 1 and 5

File name: Supplementary Data 7

Description: GeneAnalytics Pathway analysis

File name: Supplementary Data 8

Description: Summary of association with HDL-C in MESA for LAG-associated proteins demonstrating FDR < 0.05 at both MESA Exams 1 and 5

File name: Supplementary Data 9

Description: Summary of association with HDL-C in FHS for LAG3-associated proteins discovered in MESA Exams 1 and 5 and exhibiting Bonferroni corrected statistical significance in FHS ($P < 0.05/13$)

File name: Supplementary Data 10

Description: Summary of association with HDL-C in FHS for LAG3-associated proteins demonstrating FDR < 0.05

File name: Supplementary Data 11

Description: Summary of association with HDL-C for LAG3-associated proteins discovered in FHS and demonstrating Bonferroni corrected statistical significance at both MESA Exams 1 and 5 ($P < 0.05/88$)

File name: Supplementary Data 12

Description: Summary of association with all-cause mortality in FHS for LAG3-associated proteins discovered at FDR < 0.05

File name: Supplementary Data 13

Description: Summary of association with all-cause mortality in MESA for LAG3-associated proteins discovered in FHS and exhibiting nominal associations in MESA (at $P < 0.05$)

File name: Supplementary Data 14

Description: Supplementary Source Data for Figure 3a

File name: Supplementary Data 15

Description: Supplementary Source data for Figure 3b