

Table S11: GO function analysis of top 100 signals, when compared to all signals, from CEU population using the  $T_2$  test statistic.

Description	<i>p</i> -value	Enrichment	Genes
MHC class II receptor activity	$1.4 \times 10^{-9}$	87.2	<i>HLA-DPA1, HLA-DQA1, HLA-DQB1, HLA-DRA, HLA-DRB1</i>

GO categories in which false discovery rate is less than 0.01.