

Supplementary Table 6. Heterogeneity, MR-Egger intercept, and MR-PRESSO analyses

Gene-cell type pair	bin_Naïve/Immature B Cell_EBPL	bin_Naïve/Immature B Cell_HLA-DQA2	bin_Naïve/Immature B Cell_WARS	cd4et_CD4 Effector memory/TE MRA_TME M258	cd4nc_CD4 Naive/Central memory T cell_MAST4	cd4nc_CD4 Naive/Central memory T cell_POLR1D	cd4nc_CD4 Naive/Central memory T cell_TNFSF13B	cd4sox4_CD4 SOX4 T cell_HLA-DRB5	cd8et_CD8 Effector memory_FB XO2	cd8et_CD8 Effector memory_HLA-DQA1	cd8et_CD8 Effector memory_SL C25A29	cd8nc_CD8 Naive/Central memory T cell_PARP14	cd8s100b_CD8 S100B T cell_ZBTB9	dc_Dendritic Cell_AGER	dc_Dendritic Cell_APOM	nk_Natural Killer Cell_EIF2A	nk_Natural Killer Cell_SLC25A29	nk_Natural Killer Recruiting Cell_HLA-DQA2
Original IVW Q	0.487	3.749	0.451	0.044	0.130	0.094	0.052	0.013	0.022	2.628	0.002	0.043	0.292	0.001	2.147	0.472	8.04E-05	0.609
Original IVW Q df	1	5	1	1	1	1	1	1	1	3	1	1	2	1	4	1	1	2
Original IVW Q P	0.485	0.586	0.502	0.834	0.718	0.759	0.819	0.911	0.881	0.453	0.966	0.837	0.864	0.970	0.709	0.492	0.993	0.738
Original MR-Egger Q	NA	2.658	NA	NA	NA	NA	NA	NA	NA	2.564	NA	NA	0.060	NA	2.147	NA	NA	0.584
Original MR-Egger Q df	NA	4	NA	NA	NA	NA	NA	NA	NA	2	NA	NA	1	NA	3	NA	NA	1
Original MR-Egger Q P	NA	0.617	NA	NA	NA	NA	NA	NA	NA	0.277	NA	NA	0.806	NA	0.543	NA	NA	0.445
Original MR-Egger intercept	NA	0.035	NA	NA	NA	NA	NA	NA	NA	0.012	NA	NA	0.061	NA	-1.27E-04	NA	NA	-0.023
Original MR-Egger intercept SE	NA	0.033	NA	NA	NA	NA	NA	NA	NA	0.052	NA	NA	0.127	NA	0.097	NA	NA	0.149
Original MR-Egger intercept P	NA	0.355	NA	NA	NA	NA	NA	NA	NA	0.844	NA	NA	0.714	NA	0.999	NA	NA	0.902
EAF<=0.20 IVW Q	NA	2.610	0.451	NA	0.130	0.094	NA	0.013	0.022	2.423	NA	NA	0.192	NA	2.147	NA	8.04E-05	0.568
EAF<=0.20 IVW Q df	NA	4	1	NA	1	1	NA	1	1	2	NA	NA	1	NA	4	NA	1	1
EAF<=0.20 IVW Q P	NA	0.625	0.502	NA	0.718	0.759	NA	0.911	0.881	0.298	NA	NA	0.661	NA	0.709	NA	0.993	0.451
EAF<=0.20 MR-Egger Q	NA	2.607	NA	NA	NA	NA	NA	NA	NA	0.568	NA	NA	NA	NA	2.147	NA	NA	NA
EAF<=0.20 MR-Egger Q df	NA	3	NA	NA	NA	NA	NA	NA	NA	1	NA	NA	NA	NA	3	NA	NA	NA
EAF<=0.20 MR-Egger Q P	NA	0.456	NA	NA	NA	NA	NA	NA	NA	0.451	NA	NA	NA	NA	0.543	NA	NA	NA
EAF<=0.20 MR-Egger intercept	NA	-0.009	NA	NA	NA	NA	NA	NA	NA	-0.435	NA	NA	NA	NA	-1.27E-04	NA	NA	NA
EAF<=0.20 MR-Egger intercept SE	NA	0.197	NA	NA	NA	NA	NA	NA	NA	0.320	NA	NA	NA	NA	0.097	NA	NA	NA
EAF<=0.20 MR-Egger intercept P	NA	0.967	NA	NA	NA	NA	NA	NA	NA	0.403	NA	NA	NA	NA	0.999	NA	NA	NA
MR-PRESSO nsnp	2	6	2	2	2	2	2	2	2	4	2	2	3	2	5	2	2	3
MR-PRESSO available	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE
MR-PRESSO global P	NA	0.547	NA	NA	NA	NA	NA	NA	NA	0.666	NA	NA	NA	NA	0.727	NA	NA	NA
MR-PRESSO note	MR-PRESSO not applied because nsnp < 4	MR-PRESSO completed	MR-PRESSO not applied because nsnp < 4	MR-PRESSO not applied because nsnp < 4	MR-PRESSO not applied because nsnp < 4	MR-PRESSO not applied because nsnp < 4	MR-PRESSO not applied because nsnp < 4	MR-PRESSO not applied because nsnp < 4	MR-PRESSO not applied because nsnp < 4	MR-PRESSO completed	MR-PRESSO not applied because nsnp < 4	MR-PRESSO not applied because nsnp < 4	MR-PRESSO not applied because nsnp < 4	MR-PRESSO not applied because nsnp < 4	MR-PRESSO completed	MR-PRESSO not applied because nsnp < 4	MR-PRESSO not applied because nsnp < 4	MR-PRESSO not applied because nsnp < 4