S2 Table. Previously reported proteins, comparisons between the associations with risk of overall breast cancer and associations with risk of breast cancer subtypes: Full results from five MR approaches

		Overall BC (from Shu et al., 2020)						Luminal A-like											Luminal B-like					
Protein	Number of SNPs	GWAS OR (95% CI)	GWAS P	iCOGS OR (95% CI)	iCOGS P	OncoArray OR (95% CI)	OncoArray P	IVW OR (95% CI)	IVW P	IVW FDR-adjusted P	Median OR (95% CI)	Median P	Egger OR (95% CI)	Egger P	MR PRESSO OR (95% CI)	MR PRESSO P	MRLocus clusters	MRLocus slope alpha (95% int)	IVW OR (95% CI)	IVW P	IVW FDR-adjusted P	Median OR (95% CI)	Median P	Egger OR (95% CI)
ADH1B	9	1.05 (0.95-1.16)	0.33	1.07 (1.02-1.12)	0.008	1.07 (1.02-1.12)	0.005	1.05 (1.01 - 1.08)	0.004	0.074	1.06 (1.02 - 1.09)	0.003	1.10 (1.02 - 1.18)	0.012	1.05 (1.01 - 1.08)	0.02	39	0.002 (-0.004, 0.007)	1.06 (0.99 - 1.14)	0.082	0.928	1.07 (0.99 - 1.15)	0.099	1.09 (0.90 - 1.31)
AKR1A1	16	0.95 (0.91-1.00)	0.06	0.98 (0.95-1.00)	0.082	0.97 (0.95-1.00)	0.026	0.97 (0.95 - 1.00)	0.035	0.308	0.98 (0.96 - 1.00)	0.119	0.97 (0.93 - 1.01)	0.135	0.97 (0.95 - 1.00)	0.052	29	-0.001 (-0.005, 0.002)	1.00 (0.96 - 1.03)	0.951	0.997	1.00 (0.95 - 1.04)	0.931	1.00 (0.94 - 1.06)
ALPI	3	1.01 (0.90-1.13)	0.92	0.86 (0.81-0.92)	8.10E-06	0.91 (0.86-0.97)	0.002	0.90 (0.83 - 0.99)	0.026	0.252	0.93 (0.87 - 0.99)	0.025	0.70 (0.49 - 1.01)	0.054	NA	NA	17	-0.018 (-0.042, 0.006)	0.77 (0.64 - 0.94)	0.011	0.555	0.77 (0.67 - 0.88)	1.86E-04	1.52 (0.89 - 2.58)
B3GNT2	9	1.01 (0.94-1.09)	0.74	1.06 (1.02-1.11)	0.003	1.04 (1.01-1.08)	0.013	1.03 (0.99 - 1.07)	0.117	0.494	1.02 (0.99 - 1.06)	0.203	1.08 (0.99 - 1.18)	0.08	1.03 (0.99 - 1.07)	0.156	32	0.006 (0.002, 0.010)	1.01 (0.91 - 1.14)	0.793	0.997	1.01 (0.94 - 1.08)	0.792	1.09 (0.82 - 1.45)
BCAM	1	0.79 (0.68-0.92)	0	0.91 (0.84-0.99)	0.033	0.95 (0.89-1.01)	0.075	0.92 (0.85 - 1.00)	0.061	0.408	NA	NA	NA	NA	NA	NA	21	-0.037 (-0.059, -0.014)	0.90 (0.74 - 1.09)	0.265	0.997	NA	NA	NA
C1GALT1C1	12	1.06 (0.99-1.12)	0.09	1.08 (1.04-1.12)	3.79E-05	1.05 (1.02-1.08)	0.002	**1.07 (1.04 - 1.10)**	**4.31E-07**	**8.70E-05**	**1.07 (1.04 - 1.10)**	**8.83E-07**	**1.10 (1.04 - 1.16)**	**0.002**	**1.07 (1.04 - 1.10)**	**3.69E-04**	38	0.001 (-0.002, 0.003)	1.01 (0.97 - 1.05)	0.643	0.997	1.04 (0.98 - 1.10)	0.208	1.07 (0.97 - 1.19)
CAMK1	13	0.97 (0.94-1.01)	0.11	0.98 (0.96-1.00)	0.048	0.98 (0.96-0.99)	0.01	**0.97 (0.96 - 0.98)**	**3.90E-06**	**3.93E-04**	**0.97 (0.96 - 0.99)**	**0.001**	**0.97 (0.95 - 1.00)**	**0.031**	**0.97 (0.96 - 0.98)**	**4.41E-04**	32	-0.004 (-0.009, 0.002)	1.01 (0.98 - 1.04)	0.431	0.997	1.02 (0.98 - 1.05)	0.345	1.02 (0.96 - 1.08)
CD36	1	0.84 (0.75-0.94)	0	0.91 (0.86-0.97)	0.004	0.98 (0.93-1.03)	0.445	0.95 (0.91 - 1.00)	0.054	0.379	NA	NA	NA	NA	NA	NA	21	-0.011 (-0.015, -0.008)	0.94 (0.85 - 1.05)	0.307	0.997	NA	NA	NA
CDH5	13	0.92 (0.87-0.97)	0	0.96 (0.93-0.99)	0.005	0.99 (0.96-1.02)	0.426	**0.96 (0.94 - 0.98)**	**2.57E-04**	**0.011**	**0.97 (0.95 - 1.00)**	**0.019**	0.99 (0.95 - 1.02)	0.483	**0.96 (0.94 - 0.98)**	**0.003**	32	0.001 (-0.003, 0.005)	0.98 (0.94 - 1.01)	0.2	0.997	0.97 (0.93 - 1.02)	0.269	0.96 (0.90 - 1.03)
CHST15	3	1.02 (0.90-1.15)	0.78	0.87 (0.81-0.93)	2.01E-05	0.91 (0.85-0.96)	0.002	0.92 (0.83 - 1.02)	0.114	0.488	0.92 (0.87 - 0.97)	0.001	0.74 (0.62 - 0.88)	0.001	NA	NA	34	-0.023 (-0.039, -0.008)	0.92 (0.83 - 1.01)	0.081	0.928	0.91 (0.82 - 1.01)	0.074	0.83 (0.59 - 1.16)
CPNE1	12	0.93 (0.88-0.98)	0	0.98 (0.95-1.00)	0.092	0.96 (0.94-0.99)	0.004	0.98 (0.96 - 0.99)	0.005	0.085	0.97 (0.95 - 0.99)	0.012	0.98 (0.95 - 1.01)	0.207	0.98 (0.96 - 0.99)	0.011	28	-0.009 (-0.015, -0.002)	0.99 (0.96 - 1.03)	0.744	0.997	0.96 (0.92 - 1.01)	0.115	0.94 (0.87 - 1.01)
CRYBB2	3	1.10 (0.90-1.36)	0.35	1.17 (1.05-1.30)	0.005	1.17 (1.06-1.29)	0.002	1.02 (0.86 - 1.21)	0.853	0.974	0.99 (0.91 - 1.08)	0.878	2.73 (1.64 - 4.54)	1.06E-04	NA	NA	19	0.015 (-0.001, 0.032)	1.02 (0.89 - 1.18)	0.735	0.997	1.01 (0.87 - 1.18)	0.871	1.64 (0.53 - 5.04)
CTSF	6	1.07 (0.97-1.19)	0.2	1.10 (1.03-1.16)	0.002	1.06 (1.01-1.12)	0.023	1.04 (0.99 - 1.10)	0.144	0.558	1.02 (0.98 - 1.08)	0.328	1.07 (0.82 - 1.39)	0.631	1.04 (0.99 - 1.10)	0.204	21	0.028 (-0.001, 0.057)	1.00 (0.92 - 1.09)	0.967	0.997	0.99 (0.90 - 1.09)	0.828	1.17 (0.81 - 1.69)
DOCK9	2	1.07 (0.93-1.23)	0.35	1.11 (1.03-1.19)	0.005	1.11 (1.04-1.19)	0.002	1.06 (0.95 - 1.18)	0.318	0.789	NA	NA	NA	NA	NA	NA	18	0.018 (-0.007, 0.042)	1.06 (0.95 - 1.19)	0.283	0.997	NA	NA	NA
ENG	1	0.86 (0.72-1.04)	0.12	0.78 (0.70-0.86)	1.83E-06	0.87 (0.80-0.96)	0.004	**0.82 (0.76 - 0.90)**	**3.69E-06**	**3.93E-04**	NA	NA	NA	NA	NA	NA	**15**	**-0.068 (-0.108, -0.027)**	0.92 (0.77 - 1.10)	0.356	0.997	NA	NA	NA
FAM177A1	14	1.01 (0.90-1.13)	0.93	0.87 (0.82-0.92)	1.08E-05	0.92 (0.86-0.97)	0.003	0.98 (0.95 - 1.01)	0.284	0.742	1.00 (0.97 - 1.02)	0.872	1.00 (0.94 - 1.07)	0.907	0.98 (0.95 - 1.01)	0.304	37	-0.006 (-0.016, 0.005)	0.98 (0.92 - 1.04)	0.501	0.997	1.01 (0.96 - 1.07)	0.646	1.06 (0.94 - 1.20)
FAM208	4	1.16 (0.97-1.38)	0.1	1.24 (1.13-1.36)	6.50E-06	1.13 (1.04-1.23)	0.003	1.09 (0.99 - 1.21)	0.09	0.463	1.14 (1.06 - 1.23)	3.35E-04	1.43 (1.21 - 1.68)	1.87E-05	1.09 (0.99 - 1.21)	0.188	24	0.038 (0.018, 0.058)	1.05 (0.95 - 1.17)	0.353	0.997	1.07 (0.94 - 1.21)	0.319	1.28 (0.90 - 1.82)
FASLG	1	0.98 (0.80-1.20)	0.85	0.87 (0.79-0.96)	0.006	0.88 (0.81-0.96)	0.005	0.90 (0.83 - 0.97)	0.007	0.111	NA	NA	NA	NA	NA	NA	17	-0.043 (-0.054, -0.031)	0.96 (0.81 - 1.15)	0.681	0.997	NA	NA	NA
FLT4	27	0.99 (0.95-1.03)	0.65	0.97 (0.94-0.99)	0.007	0.97 (0.95-0.99)	0.005	0.98 (0.96 - 1.00)	0.026	0.254	1.00 (0.98 - 1.02)	0.967	0.98 (0.94 - 1.03)	0.528	0.98 (0.96 - 1.00)	0.035	50	-0.013 (-0.020, -0.005)	1.02 (0.99 - 1.05)	0.129	0.997	1.02 (0.98 - 1.07)	0.269	0.99 (0.93 - 1.06)
GAL	2	0.85 (0.70-1.03)	0.1	0.87 (0.78-0.97)	0.01	0.90 (0.82-1.00)	0.049	0.95 (0.81 - 1.11)	0.498	0.947	NA	NA	NA	NA	NA	NA	13	-0.014 (-0.044, 0.016)	0.89 (0.77 - 1.03)	0.116	0.99	NA	NA	NA
GOLM1	11	1.00 (0.94-1.07)	0.94	1.05 (1.02-1.09)	0.004	1.04 (1.01-1.07)	0.017	**1.06 (1.02 - 1.09)**	**3.80E-04**	**0.014**	**1.08 (1.05 - 1.11)**	**1.63E-07**	**1.10 (1.02 - 1.18)**	**0.016**	**1.06 (1.02 - 1.09)**	**0.005**	29	0.002 (-0.003, 0.007)	0.98 (0.90 - 1.07)	0.696	0.997	1.05 (0.99 - 1.12)	0.105	1.14 (0.95 - 1.38)
HTN1	3	1.09 (0.96-1.24)	0.19	1.13 (1.06-1.21)	4.32E-04	1.06 (1.00-1.13)	0.044	1.06 (0.98 - 1.14)	0.12	0.501	1.08 (1.03 - 1.14)	0.003	1.14 (0.88 - 1.48)	0.305	NA	NA	14	0.001 (-0.003, 0.005)	1.14 (1.04 - 1.25)	0.005	0.374	1.14 (1.03 - 1.25)	0.013	1.13 (0.87 - 1.47)
ICAM2	2	0.85 (0.70-1.03)	0.1	0.79 (0.71-0.87)	6.50E-06	0.87 (0.80-0.95)	0.003	**0.81 (0.75 - 0.88)**	**3.06E-07**	**6.86E-05**	NA	NA	NA	NA	NA	NA	**20**	**-0.070 (-0.121, -0.020)**	0.90 (0.78 - 1.05)	0.176	0.997	NA	NA	NA
IGF1R	1	0.85 (0.70-1.04)	0.12	0.76 (0.68-0.85)	1.83E-06	0.86 (0.78-0.96)	0.004	**0.81 (0.74 - 0.89)**	**3.69E-06**	**3.93E-04**	NA	NA	NA	NA	NA	NA	**15**	**-0.040 (-0.076, -0.004)**	0.91 (0.75 - 1.11)	0.356	0.997	NA	NA	NA
IL3RA	18	0.96 (0.91-1.01)	0.13	0.93 (0.91-0.96)	2.02E-06	0.96 (0.94-0.99)	0.003	**0.94 (0.93 - 0.95)**	**6.46E-20**	**1.30E-16**	**0.95 (0.93 - 0.97)**	**2.51E-08**	**0.96 (0.94 - 0.99)**	**0.004**	**0.94 (0.93 - 0.95)**	**5.72E-08**	**35**	**-0.015 (-0.018, -0.011)**	0.97 (0.94 - 1.00)	0.027	0.738	0.97 (0.93 - 1.01)	0.107	0.97 (0.92 - 1.02)
INSR	8	0.94 (0.88-1.02)	0.12	0.90 (0.87-0.94)	2.24E-06	0.94 (0.91-0.98)	0.003	**0.92 (0.90 - 0.95)**	**8.95E-10**	**6.02E-07**	**0.92 (0.90 - 0.95)**	**3.00E-07**	**0.92 (0.87 - 0.97)**	**0.004**	**0.92 (0.90 - 0.95)**	**4.78E-04**	**26**	**-0.040 (-0.046, -0.033)**	0.93 (0.88 - 0.99)	0.015	0.634	0.96 (0.90 - 1.02)	0.213	0.98 (0.87 - 1.10)
ISLR2	12	0.94 (0.87-1.02)	0.12	0.91 (0.87-0.95)	3.34E-05	0.94 (0.90-0.97)	0.001	**0.93 (0.89 - 0.96)**	**1.18E-04**	**0.007**	**0.92 (0.89 - 0.95)**	**5.27E-07**	0.94 (0.85 - 1.03)	0.18	**0.93 (0.89 - 0.96)**	**0.003**	**23**	**-0.022 (-0.041, -0.004)**	0.94 (0.90 - 0.99)	0.013	0.604	0.95 (0.89 - 1.01)	0.086	0.95 (0.85 - 1.07)
JAG1	4	1.07 (0.95-1.21)	0.24	0.92 (0.86-0.99)	0.016	0.91 (0.86-0.97)	0.003	0.90 (0.84 - 0.96)	0.002	0.05	0.92 (0.86 - 0.97)	0.005	0.96 (0.65 - 1.42)	0.847	0.90 (0.84 - 0.96)	0.055	25	-0.019 (-0.047, 0.009)	0.96 (0.85 - 1.08)	0.492	0.997	0.91 (0.80 - 1.04)	0.16	0.98 (0.50 - 1.94)
KDR	8	0.99 (0.93-1.05)	0.69	0.95 (0.92-0.98)	0.003	0.97 (0.94-0.99)	0.018	**0.94 (0.91 - 0.97)**	**1.05E-04**	**0.006**	**0.93 (0.90 - 0.96)**	**2.55E-06**	**0.92 (0.86 - 0.97)**	**0.006**	**0.94 (0.91 - 0.97)**	**0.006**	**31**	**-0.019 (-0.036, -0.002)**	0.97 (0.92 - 1.02)	0.261	0.997	0.97 (0.91 - 1.03)	0.292	0.94 (0.85 - 1.04)
KIN	5	0.96 (0.88-1.06)	0.47	0.93 (0.88-0.97)	0.002	0.95 (0.91-0.99)	0.026	0.93 (0.88 - 0.98)	0.008	0.119	0.93 (0.88 - 0.98)	0.009	0.92 (0.78 - 1.08)	0.301	0.93 (0.88 - 0.98)	0.057	23	-0.080 (-0.112, -0.049)	0.94 (0.87 - 1.02)	0.12	0.99	0.92 (0.83 - 1.01)	0.067	0.84 (0.69 - 1.03)
KLRF1	1	1.13 (0.95-1.33)	0.16	1.10 (1.01-1.20)	0.026	1.10 (1.02-1.18)	0.013	1.11 (1.01 - 1.22)	0.033	0.296	NA	NA	NA	NA	NA	NA	10	-0.020 (-0.048, 0.007)	1.09 (0.89 - 1.35)	0.388	0.997	NA	NA	NA
LIFR	1	0.89 (0.77-1.03)	0.12	0.82 (0.75-0.89)	1.83E-06	0.90 (0.84-0.97)	0.004	0.86 (0.80 - 0.92)	3.69E-06	3.93E-04	NA	NA	NA	NA	NA	NA	21	-0.008 (-0.035, 0.021)	0.94 (0.81 - 1.08)	0.356	0.997	NA	NA	NA
MAN1A2	5	1.07 (0.92-1.24)	0.39	1.10 (1.03-1.18)	0.006	1.07 (1.01-1.14)	0.023	1.04 (0.96 - 1.12)	0.345	0.818	1.02 (0.97 - 1.07)	0.537	0.87 (0.55 - 1.37)	0.554	1.04 (0.96 - 1.12)	0.398	24	0.022 (-0.013, 0.058)	1.04 (0.96 - 1.13)	0.318	0.997	1.03 (0.94 - 1.13)	0.533	1.02 (0.66 - 1.59)
MET	4	0.91 (0.81-1.02)	0.12	0.85 (0.80-0.91)	1.83E-06	0.92 (0.87-0.97)	0.004	0.92 (0.85 - 1.00)	0.062	0.408	0.90 (0.86 - 0.95)	4.18E-05	0.85 (0.66 - 1.10)	0.215	0.92 (0.85 - 1.00)	0.158	23	-0.045 (-0.063, -0.027)	0.93 (0.85 - 1.01)	0.091	0.977	0.94 (0.85 - 1.03)	0.187	0.97 (0.77 - 1.23)
NOTCH1	1	0.75 (0.63-0.90)	0	0.87 (0.78-0.96)	0.005	0.96 (0.88-1.05)	0.409	0.92 (0.85 - 1.00)	0.058	0.398	NA	NA	NA	NA	NA	NA	19	-0.022 (-0.046, 0.002)	0.90 (0.75 - 1.08)	0.272	0.997	NA	NA	NA
PRDM1	25	1.03 (0.97-1.09)	0.3	1.04 (1.01-1.07)	0.016	1.03 (1.00-1.05)	0.065	**1.03 (1.01 - 1.04)**	**3.54E-04**	**0.013**	**1.04 (1.01 - 1.06)**	**0.001**	**1.04 (1.01 - 1.08)**	**0.013**	**1.03 (1.01 - 1.04)**	**0.001**	48	0.001 (-0.001, 0.003)	1.03 (0.99 - 1.06)	0.107	0.99	1.03 (0.98 - 1.08)	0.314	1.03 (0.96 - 1.11)
PSD	8	1.01 (0.95-1.07)	0.79	0.97 (0.93-1.01)	0.104	0.95 (0.92-0.98)	7.83E-04	0.97 (0.95 - 0.99)	0.018	0.207	0.96 (0.94 - 0.99)	0.021	0.96 (0.92 - 1.01)	0.129	0.97 (0.95 - 0.99)	0.047	19	-0.014 (-0.021, -0.008)	0.99 (0.94 - 1.05)	0.818	0.997	0.98 (0.92 - 1.05)	0.634	0.98 (0.87 - 1.10)
PTGR1	11	0.95 (0.83-1.08)	0.44	0.94 (0.87-1.00)	2.02E-06	0.92 (0.86-0.98)	0.015	**0.95 (0.93 - 0.97)**	**7.40E-05**	**0.005**	**0.96 (0.92 - 0.99)**	**0.008**	0.96 (0.90 - 1.03)	0.262	**0.95 (0.93 - 0.97)**	**4.64E-04**	22	-0.014 (-0.038, 0.010)	0.96 (0.91 - 1.01)	0.153	0.997	0.94 (0.87 - 1.02)	0.125	0.84 (0.72 - 0.97)
QSOX2	26	1.00 (0.95-1.04)	0.82	1.04 (1.01-1.06)	0.002	1.03 (1.01-1.05)	0.008	**1.04 (1.02 - 1.06)**	**1.44E-04**	**0.008**	**1.05 (1.03 - 1.07)**	**1.41E-07**	**1.05 (1.01 - 1.09)**	**0.025**	**1.04 (1.02 - 1.06)**	**0.001**	39	0.000 (-0.001, 0.001)	1.02 (1.00 - 1.05)	0.083	0.928	1.03 (1.00 - 1.07)	0.076	1.05 (1.00 - 1.10)
RELT	2	0.99 (0.91-1.08)	0.83	1.09 (1.04-1.14)	8.12E-04	1.07 (1.02-1.12)	0.004	1.05 (0.99 - 1.11)	0.081	0.461	NA	NA	NA	NA	NA	NA	18	0.001 (-0.001, 0.003)	0.99 (0.76 - 1.28)	0.945	0.997	NA	NA	NA
RSPO3	3	0.99 (0.88-1.13)	0.93	0.90 (0.84-0.97)	0.005	0.92 (0.87-0.99)	0.019	0.90 (0.83 - 0.98)	0.012	0.164	0.92 (0.87 - 0.97)	0.003	0.59 (0.25 - 1.39)	0.23	NA	NA	16	0.002 (-0.005, 0.009)	0.87 (0.78 - 0.96)	0.007	0.442	0.86 (0.77 - 0.97)	0.01	0.91 (0.31 - 2.67)
SCG3	5	1.08 (0.99-1.18)	0.1	1.06 (1.02-1.11)	0.009	1.03 (0.99-1.08)	0.143	1.03 (1.00 - 1.07)	0.049	0.366	1.03 (1.00 - 1.07)	0.048	1.05 (0.97 - 1.14)	0.221	1.03 (1.00 - 1.07)	0.121	23	0.053 (-0.007, 0.113)	1.04 (0.97 - 1.11)	0.221	0.997	1.05 (0.97 - 1.13)	0.223	1.07 (0.92 - 1.24)
SEC13	4	0.80 (0.65-0.97)	0.02	0.91 (0.82-1.02)	0.106	0.88 (0.80-0.98)	0.016	0.93 (0.83 - 1.04)	0.195	0.607	0.93 (0.88 - 0.99)	0.028	1.21 (0.08 -19.17)	0.89	0.93 (0.83 - 1.04)	0.286	20	0.055 (0.009, 0.100)	0.95 (0.85 - 1.06)	0.331	0.997	0.97 (0.86 - 1.10)	0.67	3.28 (0.34 - 31.57)
SELE	20	0.97 (0.94-1.01)	0.13	0.95 (0.93-0.97)	2.02E-06	0.97 (0.95-0.99)	0.003	**0.95 (0.94 - 0.97)**	**6.24E-15**	**6.30E-12**	**0.96 (0.94 - 0.97)**	**9.31E-09**	**0.96 (0.94 - 0.98)**	**3.20E-05**	**0.95 (0.94 - 0.97)**	**1.79E-07**	37	-0.006 (-0.013, 0.000)	0.97 (0.95 - 1.00)	0.033	0.78	0.98 (0.95 - 1.01)	0.183	0.98 (0.94 - 1.03)
SELP	12	0.95 (0.90-1.00)	0.07	0.95 (0.92-0.98)	3.30E-04	0.97 (0.94-1.00)	0.053	0.97 (0.94 - 1.00)	0.067	0.424	0.98 (0.95 - 1.01)	0.289	0.96 (0.90 - 1.02)	0.215	0.97 (0.94 - 1.00)	0.094	38	-0.014 (-0.034, 0.006)	0.98 (0.94 - 1.02)	0.284	0.997	0.98 (0.92 - 1.03)	0.396	0.99 (0.91 - 1.08)
SEMA6A	7	0.87 (0.78-0.97)	0.01	0.92 (0.87-0.98)	0.008	0.98 (0.93-1.03)	0.388	**0.92 (0.88 - 0.97)**	**0.001**	**0.035**	**0.93 (0.89 - 0.98)**	**0.005**	0.97 (0.84 - 1.12)	0.684	**0.92 (0.88 - 0.97)**	**0.018**	**26**	**-0.024 (-0.045, -0.003)**	0.95 (0.88 - 1.02)	0.162	0.997	0.92 (0.84 - 1.02)	0.109	0.97 (0.79 - 1.21)
STOM	9	1.04 (0.96-1.14)	0.32	1.06 (1.02-1.11)	0.008	1.06 (1.02-1.10)	0.005	**1.05 (1.02 - 1.08)**	**0.001**	**0.03**	**1.05 (1.02 - 1.09)**	**0.002**	**1.09 (1.02 - 1.17)**	**0.015**	**1.05 (1.02 - 1.08)**	**0.011**	**31**	**0.013 (0.003, 0.022)**	1.05 (0.99 - 1.12)	0.109	0.99	1.04 (0.97 - 1.12)	0.213	1.06 (0.89 - 1.26)
SULF2	3	0.92 (0.83-1.02)	0.1	0.95 (0.90-1.01)	0.1	0.94 (0.90-0.99)	0.02	0.94 (0.88 - 1.00)	0.039	0.321	0.93 (0.88 - 0.99)	0.015	1.28 (0.92 - 1.77)	0.137	NA	NA	21	-0.072 (-0.101, -0.043)	0.97 (0.88 - 1.06)	0.485	0.997	1.00 (0.89 - 1.12)	0.96	1.33 (0.65 - 2.71)
TFPI	3	1.13 (0.99-1.30)	0.08	1.06 (0.98-1.15)	0.126	1.09 (1.01-1.17)	0.02	1.06 (0.98 - 1.14)	0.127	0.519	1.06 (1.01 - 1.13)	0.031	1.11 (0.80 - 1.54)	0.525	NA	NA	22	0.022 (0.011, 0.034)	0.93 (0.83 - 1.04)	0.2	0.997	0.94 (0.83 - 1.07)	0.331	0.81 (0.56 - 1.18)
THSD1	4	0.93 (0.84-1.03)	0.16	0.93 (0.88-0.98)	0.007	0.96 (0.92-1.01)	0.116	0.91 (0.84 - 1.00)	0.048	0.362	0.91 (0.84 - 0.97)	0.008	1.25 (0.64 - 2.46)	0.513	0.91 (0.84 - 1.00)	0.142	14	-0.044 (-0.084, -0.004)	0.98 (0.86 - 1.12)	0.784	0.997	0.93 (0.82 - 1.06)	0.296	2.29 (1.12 - 4.68)
TIE1	10	0.94 (0.89-0.99)	0.01	0.96 (0.94-0.99)	0.012	0.98 (0.95-1.00)	0.099	0.99 (0.96 - 1.02)	0.585	0.947	0.98 (0.96 - 1.00)	0.08	0.99 (0.93 - 1.05)	0.721	0.99 (0.96 - 1.02)	0.598	31	0.010 (0.002, 0.018)	1.00 (0.97 - 1.05)	0.797	0.997	0.98 (0.93 - 1.04)	0.576	0.98 (0.91 - 1.05)
TLL1	1	0.82 (0.73-0.93)	0	0.91 (0.85-0.97)	0.005	0.97 (0.92-1.04)	0.428	0.95 (0.90 - 1.00)	0.061	0.408	NA	NA	NA	NA	NA	NA	21	-0.015 (-0.019, -0.010)	0.93 (0.82 - 1.05)	0.265	0.997	NA	NA	NA
TMPRSS11I	18	1.04 (0.96-1.12)	0.35	1.06 (1.02-1.10)	0.005	1.06 (1.02-1.10)	0.002	**1.04 (1.02 - 1.06)**	**3.20E-05**	**0.003**	**1.05 (1.02 - 1.08)**	**0.001**	**1.06 (1.01 - 1.11)**	**0.009**	**1.04 (1.02 - 1.06)**	**4.13E-04**	42	0.005 (-0.002, 0.011)	1.03 (0.99 - 1.08)	0.136	0.997	1.03 (0.97 - 1.10)	0.317	1.12 (1.01 - 1.24)
TNS2	6	1.05 (0.95-1.17)	0.35	1.08 (1.02-1.14)	0.005	1.08 (1.03-1.14)	0.002	1.05 (1.01 - 1.10)	0.026	0.252	1.06 (1.02 - 1.11)	0.003	1.10 (0.94 - 1.30)	0.221	1.05 (1.01 - 1.10)	0.076	28	0.012 (-0.004, 0.028)	1.05 (0.98 - 1.14)	0.173	0.997	1.04 (0.95 - 1.14)	0.352	1.05 (0.80 - 1.37)
TPST2	7	1.06 (0.97-1.16)	0.22	1.06 (1.01-1.12)	0.026	1.07 (1.02-1.12)	0.004	1.02 (0.96 - 1.09)	0.47	0.935	1.01 (0.96 - 1.06)	0.829	1.41 (1.05 - 1.89)	0.023	1.02 (0.96 - 1.09)	0.497	25	0.006 (-0.009, 0.021)	1.03 (0.97 - 1.11)	0.329	0.997	1.05 (0.97 - 1.15)	0.222	1.15 (0.78 - 1.69)
VCAM1	3	0.78 (0.65-0.94)	0.01	0.84 (0.76-0.93)	0.001	0.87 (0.79-0.95)	0.003	0.90 (0.75 - 1.08)	0.257	0.703	0.84 (0.77 - 0.91)	2.15E-05	0.49 (0.04 - 6.71)	0.591	NA	NA	23	-0.128 (-0.179, -0.078)	1.11 (0.88 - 1.39)	0.395	0.997	1.08 (0.91 - 1.28)	0.377	0.29 (0.02 - 4.04)

NA: not availale.

Cells in gray: strong associations with a BH-FDR < 0.05 for IVW estimates & p < 0.05 (weighted median, MR-Egger and MR-PRESSO) or nonzero effect (MRLocus) in two of the three four remaining MR approaches.

Cells in blue: suggestive associations with a BH-FDR > 0.05 for IVW estimates but p < 0.01 (weighted median, MR-Egger and MR-PRESSO) or nonzero effect (MRLocus) in two of the three four remaining MR approaches.

					Luminal B/HER2 negative-like										HER2 enriched					
Egger P	MR PRESSO OR (95% CI)	MR PRESSO P	MRLocus clusters	rMRLocus slope alpha (95% Int)	IVW OR (95% CI)	IVW P	IVW FDR-adjusted P	Median OR (95% CI)	Median P	Egger OR (95% CI)	Egger P	MR PRESSO OR (95% CI)	MR PRESSO P	MRLocus clusters	MRLocus slope alpha (95% Int)	IVW OR (95% CI)	IVW P	IVW FDR-adjusted P	Median OR (95% CI)	Median P	Egger OR (95% CI)	Egger P
0.384	1.06 (0.99 - 1.14)	0.12	39	0.005 (-0.006, 0.016)	1.06 (1.01 - 1.11)	0.029	0.388	1.05 (0.99 - 1.12)	0.125	1.10 (0.96 - 1.26)	0.164	1.06 (1.01 - 1.11)	0.061	39	-0.011 (-0.028, 0.006)	1.13 (1.02 - 1.25)	0.018	0.58	1.21 (1.07 - 1.36)	0.002	1.28 (1.00 - 1.65)	0.052
0.901	1.00 (0.97 - 1.03)	0.949	29	-0.002 (-0.006, 0.003)	0.96 (0.94 - 0.99)	0.015	0.312	0.97 (0.93 - 1.01)	0.113	0.95 (0.91 - 1.00)	0.068	0.96 (0.94 - 0.99)	0.021	29	0.003 (-0.004, 0.009)	0.99 (0.94 - 1.04)	0.624	0.999	0.97 (0.91 - 1.04)	0.414	0.98 (0.89 - 1.08)	0.741
0.124	NA	NA	17	0.007 (-0.015, 0.029)	0.92 (0.79 - 1.08)	0.331	0.65	0.89 (0.80 - 0.99)	0.036	0.53 (0.34 - 0.84)	0.007	NA	NA	17	-0.026 (-0.061, 0.010)	0.96 (0.82 - 1.11)	0.57	0.999	0.96 (0.81 - 1.13)	0.603	0.96 (0.44 - 2.09)	0.922
0.542	1.01 (0.91 - 1.14)	0.8	32	0.044 (-0.000, 0.088)	1.00 (0.96 - 1.05)	0.856	0.942	1.00 (0.94 - 1.06)	0.918	1.07 (0.96 - 1.20)	0.213	1.00 (0.96 - 1.05)	0.845	32	-0.004 (-0.016, 0.008)	0.94 (0.86 - 1.01)	0.099	0.999	0.94 (0.84 - 1.04)	0.223	1.02 (0.84 - 1.24)	0.845
NA	NA	NA	21	-0.034 (-0.068, 0.000)	1.02 (0.87 - 1.20)	0.773	0.899	NA	NA	NA	NA	NA	NA	21	-0.007 (-0.020, 0.006)	1.03 (0.79 - 1.35)	0.833	0.999	NA	NA	NA	NA
0.151	1.01 (0.98 - 1.04)	0.526	38	-0.012 (-0.039, 0.016)	1.04 (1.00 - 1.08)	0.059	0.417	1.05 (1.00 - 1.11)	0.032	1.11 (1.02 - 1.21)	0.017	1.04 (1.00 - 1.08)	0.086	38	0.003 (-0.003, 0.009)	1.04 (0.98 - 1.11)	0.219	0.999	1.05 (0.97 - 1.14)	0.245	1.08 (0.94 - 1.25)	0.299
0.461	1.01 (0.98 - 1.04)	0.446	32	0.002 (-0.004, 0.007)	0.97 (0.95 - 0.99)	0.014	0.301	0.97 (0.94 - 1.00)	0.047	0.98 (0.93 - 1.03)	0.381	0.97 (0.95 - 0.99)	0.01	32	-0.005 (-0.013, 0.003)	1.02 (0.97 - 1.06)	0.442	0.999	1.01 (0.96 - 1.06)	0.706	1.00 (0.93 - 1.09)	0.917
NA	NA	NA	21	-0.010 (-0.027, 0.007)	1.01 (0.92 - 1.11)	0.766	0.899	NA	NA	NA	NA	NA	NA	21	-0.004 (-0.010, 0.002)	1.02 (0.87 - 1.19)	0.828	0.999	NA	NA	NA	NA
0.267	0.98 (0.96 - 0.99)	0.031	32	-0.011 (-0.029, 0.008)	0.99 (0.96 - 1.02)	0.413	0.674	1.00 (0.97 - 1.05)	0.801	1.02 (0.96 - 1.08)	0.488	0.99 (0.96 - 1.01)	0.361	32	0.003 (-0.006, 0.011)	0.98 (0.92 - 1.05)	0.566	0.999	1.01 (0.94 - 1.08)	0.81	1.01 (0.90 - 1.14)	0.852
0.268	NA	NA	34	0.004 (-0.006, 0.013)	0.90 (0.83 - 0.98)	0.017	0.328	0.91 (0.83 - 0.99)	0.029	0.82 (0.61 - 1.09)	0.174	NA	NA	34	-0.014 (-0.031, 0.003)	0.92 (0.80 - 1.06)	0.256	0.999	0.95 (0.82 - 1.11)	0.526	0.96 (0.56 - 1.66)	0.898
0.083	0.99 (0.96 - 1.03)	0.75	28	-0.005 (-0.014, 0.004)	**0.92 (0.89 - 0.96)**	**1.68E-05**	**0.008**	**0.92 (0.88 - 0.95)**	**4.73E-05**	0.95 (0.88 - 1.03)	0.191	**0.92 (0.89 - 0.96)**	**0.001**	**28**	**-0.050 (-0.085,-0.015)**	0.99 (0.94 - 1.05)	0.823	0.999	1.01 (0.95 - 1.08)	0.685	1.05 (0.94 - 1.16)	0.409
0.391	NA	NA	19	0.043 (-0.002, 0.087)	1.10 (0.98 - 1.24)	0.114	0.536	1.12 (0.98 - 1.29)	0.087	1.19 (0.46 - 3.12)	0.721	NA	NA	19	-0.008 (-0.031, 0.016)	1.27 (0.94 - 1.73)	0.121	0.999	1.35 (1.05 - 1.72)	0.018	3.70 (0.22 - 61.46)	0.362
0.411	1.00 (0.92 - 1.09)	0.969	21	0.053 (0.003, 0.103)	1.07 (1.00 - 1.14)	0.036	0.406	1.08 (1.00 - 1.17)	0.051	1.17 (0.89 - 1.53)	0.263	1.07 (1.04 - 1.10)	0.007	21	0.004 (-0.006, 0.013)	1.04 (0.92 - 1.19)	0.504	0.999	1.01 (0.88 - 1.18)	0.84	1.44 (0.85 - 2.42)	0.171
NA	NA	NA	18	-0.004 (-0.013, 0.005)	1.05 (0.96 - 1.15)	0.302	0.65	NA	NA	NA	NA	NA	NA	18	-0.010 (-0.020, 0.001)	1.26 (1.07 - 1.48)	0.004	0.3	NA	NA	NA	NA
NA	NA	NA	15	0.002 (-0.005, 0.008)	0.86 (0.73 - 1.00)	0.048	0.406	NA	NA	NA	NA	NA	NA	15	-0.017 (-0.047, 0.013)	0.89 (0.69 - 1.16)	0.39	0.999	NA	NA	NA	NA
0.351	0.98 (0.92 - 1.04)	0.512	37	0.004 (-0.007, 0.014)	0.94 (0.91 - 0.98)	0.001	0.107	0.95 (0.91 - 1.00)	0.033	0.95 (0.88 - 1.02)	0.146	0.94 (0.91 - 0.98)	0.006	37	-0.012 (-0.031, 0.008)	0.95 (0.90 - 1.01)	0.112	0.999	0.95 (0.88 - 1.02)	0.175	0.95 (0.83 - 1.08)	0.454
0.171	1.05 (0.98 - 1.13)	0.261	24	-0.024 (-0.052, 0.004)	1.03 (0.86 - 1.24)	0.718	0.873	1.12 (1.00 - 1.27)	0.054	1.50 (0.90 - 2.52)	0.124	1.03 (0.86 - 1.24)	0.742	24	0.007 (-0.017, 0.031)	1.07 (0.92 - 1.25)	0.358	0.999	1.11 (0.92 - 1.34)	0.267	1.51 (0.90 - 2.53)	0.12
NA	NA	NA	17	0.014 (-0.018, 0.046)	0.93 (0.80 - 1.08)	0.337	0.65	NA	NA	NA	NA	NA	NA	17	-0.037 (-0.076, 0.002)	0.68 (0.53 - 0.88)	0.003	0.236	NA	NA	NA	NA
0.827	1.02 (0.99 - 1.05)	0.141	50	0.001 (-0.001, 0.002)	**0.95 (0.93 - 0.98)**	**1.12E-04**	**0.02**	**0.95 (0.92 - 0.98)**	**0.003**	**0.93 (0.88 - 0.98)**	**0.005**	**0.95 (0.94 - 0.97)**	**3.64E-05**	50	-0.001 (-0.004, 0.002)	1.01 (0.97 - 1.05)	0.681	0.999	0.99 (0.94 - 1.06)	0.861	0.97 (0.88 - 1.06)	0.479
NA	NA	NA	13	0.008 (-0.012, 0.028)	1.03 (0.88 - 1.22)	0.701	0.863	NA	NA	NA	NA	NA	NA	13	-0.017 (-0.043, 0.009)	0.96 (0.78 - 1.18)	0.709	0.999	NA	NA	NA	NA
0.161	0.98 (0.90 - 1.07)	0.704	29	-0.012 (-0.024,-0.001)	1.04 (1.00 - 1.08)	0.039	0.406	1.06 (1.01 - 1.12)	0.015	1.09 (0.99 - 1.20)	0.062	1.04 (1.00 - 1.08)	0.066	29	0.004 (-0.004, 0.012)	0.99 (0.89 - 1.09)	0.794	0.999	1.00 (0.92 - 1.09)	0.92	1.03 (0.80 - 1.34)	0.812
0.372	NA	NA	14	0.005 (-0.007, 0.017)	1.11 (1.03 - 1.20)	0.007	0.205	1.11 (1.01 - 1.21)	0.022	1.09 (0.87 - 1.37)	0.442	NA	NA	14	-0.009 (-0.025, 0.008)	1.11 (0.97 - 1.26)	0.131	0.999	1.10 (0.95 - 1.27)	0.205	1.04 (0.71 - 1.52)	0.854
NA	NA	NA	20	0.013 (-0.017, 0.043)	0.86 (0.76 - 0.97)	0.014	0.301	NA	NA	NA	NA	NA	NA	20	-0.028 (-0.051,-0.005)	0.80 (0.63 - 1.01)	0.064	0.845	NA	NA	NA	NA
NA	NA	NA	15	-0.006 (-0.017, 0.005)	0.84 (0.71 - 1.00)	0.048	0.406	NA	NA	NA	NA	NA	NA	15	-0.022 (-0.047, 0.004)	0.88 (0.66 - 1.17)	0.39	0.999	NA	NA	NA	NA
0.259	0.97 (0.95 - 0.98)	0.002	35	-0.002 (-0.004, 0.000)	0.97 (0.94 - 0.99)	0.005	0.182	0.96 (0.92 - 0.99)	0.012	0.96 (0.92 - 1.01)	0.131	0.97 (0.95 - 0.98)	0.001	35	-0.001 (-0.003, 0.001)	0.98 (0.94 - 1.02)	0.347	0.999	0.97 (0.91 - 1.02)	0.234	0.98 (0.89 - 1.07)	0.629
0.756	0.93 (0.90 - 0.96)	0.003	26	-0.011 (-0.024, 0.001)	0.94 (0.89 - 0.98)	0.007	0.199	0.94 (0.88 - 0.99)	0.022	0.92 (0.83 - 1.02)	0.121	0.94 (0.91 - 0.96)	0.001	26	-0.019 (-0.028,-0.009)	0.96 (0.88 - 1.05)	0.388	0.999	0.95 (0.86 - 1.05)	0.323	0.91 (0.75 - 1.11)	0.364
0.41	0.94 (0.92 - 0.97)	0.001	23	-0.011 (-0.019,-0.003)	0.97 (0.93 - 1.02)	0.285	0.65	0.96 (0.91 - 1.02)	0.178	0.94 (0.84 - 1.05)	0.285	0.97 (0.93 - 1.02)	0.308	23	0.009 (-0.012, 0.030)	0.98 (0.91 - 1.05)	0.587	0.999	1.01 (0.92 - 1.10)	0.884	0.97 (0.81 - 1.17)	0.772
0.963	0.96 (0.85 - 1.08)	0.541	25	0.006 (-0.005, 0.017)	0.98 (0.85 - 1.14)	0.836	0.929	0.99 (0.88 - 1.11)	0.816	1.13 (0.49 - 2.62)	0.769	0.98 (0.85 - 1.14)	0.85	25	0.037 (0.008, 0.066)	0.98 (0.85 - 1.12)	0.76	0.999	0.95 (0.81 - 1.11)	0.504	1.13 (0.59 - 2.16)	0.719
0.216	0.97 (0.93 - 1.01)	0.206	31	0.001 (-0.003, 0.006)	0.93 (0.89 - 0.97)	0.002	0.107	0.94 (0.89 - 0.99)	0.018	0.94 (0.86 - 1.03)	0.183	0.93 (0.92 - 0.95)	3.70E-05	31	0.031 (-0.008, 0.070)	0.97 (0.90 - 1.05)	0.506	0.999	0.97 (0.88 - 1.06)	0.469	0.89 (0.77 - 1.03)	0.123
0.099	0.94 (0.88 - 1.00)	0.121	23	-0.001 (-0.006, 0.004)	0.94 (0.88 - 1.00)	0.05	0.406	0.94 (0.86 - 1.02)	0.159	0.94 (0.79 - 1.11)	0.442	0.94 (0.89 - 0.99)	0.077	23	-0.036 (-0.071,-0.002)	0.98 (0.88 - 1.10)	0.779	0.999	0.99 (0.87 - 1.14)	0.926	0.98 (0.74 - 1.32)	0.918
NA	NA	NA	10	-0.020 (-0.052, 0.013)	1.15 (0.96 - 1.37)	0.127	0.552	NA	NA	NA	NA	NA	NA	10	0.004 (-0.007, 0.015)	1.42 (1.04 - 1.92)	0.025	0.617	NA	NA	NA	NA
NA	NA	NA	21	0.077 (0.005, 0.150)	0.88 (0.78 - 1.00)	0.048	0.406	NA	NA	NA	NA	NA	NA	21	-0.018 (-0.047, 0.011)	0.91 (0.74 - 1.12)	0.39	0.999	NA	NA	NA	NA
0.927	1.04 (1.01 - 1.07)	0.053	24	0.017 (0.000, 0.034)	1.03 (0.94 - 1.13)	0.572	0.776	1.02 (0.94 - 1.12)	0.635	0.73 (0.47 - 1.13)	0.155	1.03 (0.94 - 1.13)	0.602	24	0.102 (0.029, 0.173)	1.07 (0.95 - 1.20)	0.268	0.999	1.10 (0.95 - 1.27)	0.199	1.07 (0.57 - 2.04)	0.825
0.8	0.93 (0.88 - 0.98)	0.072	23	-0.015 (-0.026,-0.005)	0.90 (0.84 - 0.97)	0.009	0.236	0.91 (0.84 - 0.99)	0.024	0.94 (0.77 - 1.15)	0.559	0.90 (0.85 - 0.96)	0.052	23	-0.043 (-0.066,-0.021)	0.97 (0.84 - 1.12)	0.653	0.999	0.98 (0.85 - 1.13)	0.753	0.90 (0.56 - 1.44)	0.662
NA	NA	NA	19	-0.023 (-0.043,-0.003)	1.02 (0.88 - 1.19)	0.787	0.906	NA	NA	NA	NA	NA	NA	19	0.001 (-0.002, 0.004)	1.03 (0.80 - 1.32)	0.835	0.999	NA	NA	NA	NA
0.419	1.03 (0.99 - 1.06)	0.12	48	0.010 (0.002, 0.017)	1.03 (1.00 - 1.06)	0.051	0.406	1.03 (0.99 - 1.08)	0.119	1.03 (0.96 - 1.10)	0.383	1.03 (1.00 - 1.06)	0.062	48	-0.002 (-0.008, 0.003)	1.07 (1.02 - 1.13)	0.006	0.38	1.11 (1.04 - 1.19)	0.002	1.11 (0.99 - 1.24)	0.081
0.721	0.99 (0.94 - 1.05)	0.825	19	-0.004 (-0.013, 0.005)	1.02 (0.97 - 1.06)	0.491	0.728	1.00 (0.95 - 1.06)	0.983	1.01 (0.92 - 1.11)	0.853	1.02 (0.97 - 1.06)	0.478	19	-0.009 (-0.030, 0.011)	0.92 (0.84 - 0.99)	0.032	0.733	0.92 (0.84 - 1.02)	0.1	0.91 (0.76 - 1.08)	0.291
0.021	0.96 (0.91 - 1.01)	0.179	22	0.034 (-0.003, 0.071)	1.03 (0.96 - 1.11)	0.355	0.65	1.02 (0.96 - 1.09)	0.532	0.95 (0.79 - 1.14)	0.556	1.03 (0.96 - 1.11)	0.377	22	0.056 (0.000, 0.112)	0.95 (0.88 - 1.03)	0.231	0.999	0.94 (0.85 - 1.05)	0.289	1.11 (0.90 - 1.38)	0.327
0.056	1.02 (1.00 - 1.04)	0.06	39	0.002 (-0.001, 0.005)	1.03 (1.01 - 1.05)	0.006	0.194	1.04 (1.01 - 1.07)	0.014	1.05 (1.01 - 1.09)	0.024	1.03 (1.01 - 1.05)	0.002	39	-0.001 (-0.002, 0.001)	0.99 (0.95 - 1.04)	0.738	0.999	1.01 (0.96 - 1.07)	0.59	1.07 (0.97 - 1.17)	0.158
NA	NA	NA	18	-0.027 (-0.064, 0.010)	1.09 (1.01 - 1.17)	0.031	0.394	NA	NA	NA	NA	NA	NA	18	0.004 (-0.001, 0.008)	1.06 (0.93 - 1.21)	0.383	0.999	NA	NA	NA	NA
0.859	NA	NA	16	0.050 (-0.009, 0.110)	0.93 (0.85 - 1.02)	0.13	0.554	0.95 (0.86 - 1.05)	0.319	0.81 (0.24 - 2.65)	0.722	NA	NA	16	-0.002 (-0.009, 0.005)	0.93 (0.80 - 1.08)	0.339	0.999	0.94 (0.80 - 1.10)	0.431	2.89 (0.58 - 14.39)	0.195
0.382	1.04 (1.01 - 1.08)	0.062	23	0.008 (-0.007, 0.022)	1.08 (1.02 - 1.14)	0.012	0.3	1.09 (1.02 - 1.16)	0.01	1.14 (1.00 - 1.30)	0.045	1.08 (1.04 - 1.11)	0.011	23	0.001 (-0.001, 0.003)	1.01 (0.92 - 1.11)	0.838	0.999	1.00 (0.90 - 1.12)	0.939	0.98 (0.76 - 1.25)	0.846
0.304	0.95 (0.88 - 1.02)	0.259	20	-0.004 (-0.015, 0.008)	1.01 (0.91 - 1.12)	0.881	0.955	1.00 (0.90 - 1.12)	0.985	1.20 (0.08 - 18.00)	0.894	1.01 (0.91 - 1.12)	0.89	20	0.001 (-0.002, 0.004)	1.00 (0.86 - 1.17)	0.963	0.999	1.01 (0.85 - 1.21)	0.893	1.64 (0.06 - 43.61)	0.768
0.422	0.97 (0.95 - 0.99)	0.012	37	-0.001 (-0.003, 0.001)	0.96 (0.94 - 0.98)	0.001	0.082	0.97 (0.94 - 1.00)	0.027	0.96 (0.93 - 1.00)	0.045	0.96 (0.95 - 0.98)	6.42E-05	37	0.000 (-0.001, 0.001)	0.99 (0.95 - 1.03)	0.702	0.999	0.97 (0.93 - 1.02)	0.276	0.95 (0.88 - 1.01)	0.118
0.856	0.98 (0.95 - 1.01)	0.162	38	-0.034 (-0.055,-0.012)	0.99 (0.95 - 1.03)	0.621	0.812	0.99 (0.94 - 1.04)	0.727	1.00 (0.92 - 1.09)	0.964	0.99 (0.95 - 1.03)	0.631	38	-0.019 (-0.028,-0.009)	0.94 (0.87 - 1.02)	0.139	0.999	0.97 (0.90 - 1.06)	0.54	1.04 (0.89 - 1.21)	0.617
0.802	0.95 (0.89 - 1.01)	0.155	26	-0.010 (-0.023, 0.003)	0.95 (0.89 - 1.01)	0.101	0.511	0.95 (0.88 - 1.03)	0.245	1.06 (0.88 - 1.27)	0.525	0.95 (0.89 - 1.01)	0.142	26	0.000 (-0.001, 0.002)	0.98 (0.88 - 1.09)	0.736	0.999	0.99 (0.87 - 1.13)	0.889	0.96 (0.71 - 1.31)	0.808
0.505	1.05 (0.99 - 1.12)	0.147	31	0.016 (0.003, 0.029)	1.07 (1.02 - 1.12)	0.005	0.178	1.05 (0.99 - 1.11)	0.103	1.02 (0.90 - 1.15)	0.793	1.07 (1.03 - 1.11)	0.011	31	0.003 (-0.007, 0.014)	1.15 (1.06 - 1.24)	0.001	0.2	1.18 (1.07 - 1.31)	0.001	1.22 (0.98 - 1.50)	0.071
0.435	NA	NA	21	0.024 (-0.002, 0.046)	0.97 (0.89 - 1.05)	0.442	0.688	0.95 (0.87 - 1.05)	0.343	0.80 (0.43 - 1.48)	0.477	NA	NA	21	-0.007 (-0.012,-0.002)	0.95 (0.82 - 1.09)	0.463	0.999	0.94 (0.81 - 1.11)	0.489	1.09 (0.38 - 3.11)	0.871
0.279	NA	NA	22	-0.004 (-0.017, 0.008)	1.04 (0.95 - 1.14)	0.419	0.677	1.07 (0.96 - 1.19)	0.221	0.98 (0.64 - 1.51)	0.93	NA	NA	22	0.012 (-0.005, 0.030)	1.01 (0.86 - 1.19)	0.908	0.999	1.01 (0.85 - 1.21)	0.896	0.83 (0.48 - 1.44)	0.511
0.023	0.98 (0.86 - 1.12)	0.802	14	0.046 (-0.005, 0.098)	0.91 (0.84 - 0.99)	0.032	0.405	0.90 (0.81 - 1.00)	0.041	1.20 (0.64 - 2.23)	0.571	0.91 (0.86 - 0.96)	0.048	14	0.015 (-0.028, 0.059)	0.96 (0.81 - 1.13)	0.599	0.999	0.90 (0.75 - 1.08)	0.26	2.36 (0.84 - 6.61)	0.102
0.502	1.00 (0.97 - 1.04)	0.77	31	0.001 (-0.002, 0.003)	1.00 (0.96 - 1.05)	0.933	0.97	1.00 (0.96 - 1.05)	0.923	1.02 (0.94 - 1.11)	0.651	1.00 (0.96 - 1.05)	0.934	31	0.003 (-0.003, 0.009)	1.02 (0.96 - 1.08)	0.474	0.999	1.02 (0.95 - 1.09)	0.638	1.00 (0.91 - 1.10)	0.994
NA	NA	NA	21	0.001 (-0.002, 0.003)	1.01 (0.92 - 1.13)	0.773	0.899	NA	NA	NA	NA	NA	NA	21	-0.013 (-0.029, 0.002)	1.02 (0.86 - 1.21)	0.833	0.999	NA	NA	NA	NA
0.037	1.03 (0.99 - 1.08)	0.154	42	0.000 (-0.001, 0.000)	1.05 (1.00 - 1.09)	0.026	0.371	1.04 (0.99 - 1.10)	0.092	1.07 (0.97 - 1.19)	0.164	1.05 (1.00 - 1.09)	0.04	42	-0.001 (-0.003, 0.002)	**1.15 (1.08 - 1.22)**	**8.10E-06**	**0.011**	**1.17 (1.07 - 1.27)**	**0.001**	1.15 (0.99 - 1.34)	0.066
0.734	1.05 (0.98 - 1.14)	0.231	28	-0.008 (-0.027, 0.012)	1.05 (0.99 - 1.12)	0.132	0.554	1.05 (0.97 - 1.13)	0.205	1.10 (0.90 - 1.35)	0.333	1.05 (1.00 - 1.10)	0.127	28	-0.014 (-0.034, 0.006)	1.14 (1.02 - 1.28)	0.02	0.59	1.18 (1.04 - 1.35)	0.013	1.28 (0.87 - 1.88)	0.214
0.486	1.03 (0.98 - 1.09)	0.227	25	0.003 (-0.006, 0.013)	1.09 (1.03 - 1.16)	0.003	0.131	1.10 (1.03 - 1.19)	0.009	1.15 (0.82 - 1.61)	0.408	1.09 (1.05 - 1.14)	0.005	25	0.023 (0.005, 0.040)	1.05 (0.95 - 1.16)	0.294	0.999	1.09 (0.96 - 1.23)	0.186	1.20 (0.68 - 2.11)	0.525
0.36	NA	NA	23	0.056 (0.004, 0.106)	0.94 (0.84 - 1.06)	0.308	0.65	0.89 (0.78 - 1.02)	0.088	0.65 (0.11 - 3.74)	0.634	NA	NA	23	-0.061 (-0.114,-0.010)	1.00 (0.70 - 1.43)	0.999	1	1.12 (0.89 - 1.41)	0.342	0.06 (0.01 - 0.48)	0.008

				Triple negative												
MR PRESSO OR (95% CI)	MR PRESSO P	MRLocus clusters	MRLocus slope alpha (95% Int)	IVW OR (95% CI)	IVW P	IVW FDR-adjusted P	Median OR (95% CI)	Median P	Egger OR (95% CI)	Egger P	MR PRESSO OR (95% CI)	MR PRESSO P	MRLocus clusters	MRLocus slope alpha (95% Int)
1.13 (1.02 - 1.25)	0.046	39	-0.019 (-0.056, 0.018)	**1.12 (1.07 - 1.18)**	**1.53E-05**	**0.002**	**1.13 (1.06 - 1.21)**	**3.52E-04**	1.15 (1.00 - 1.33)	0.054	**1.12 (1.07 - 1.18)**	**0.003**	**39**	**0.053 (0.019, 0.087)**
0.99 (0.94 - 1.04)	0.631	29	-0.007 (-0.015, 0.000)	1.02 (0.98 - 1.05)	0.309	0.732	1.02 (0.97 - 1.06)	0.465	1.00 (0.94 - 1.06)	0.989	1.02 (0.98 - 1.05)	0.325	29	-0.002 (-0.007, 0.003)
NA	NA	17	-0.070 (-0.131,-0.009)	0.95 (0.78 - 1.16)	0.632	0.913	1.02 (0.91 - 1.16)	0.713	0.53 (0.25 - 1.13)	0.101	NA	NA	17	-0.005 (-0.025, 0.014)
0.94 (0.87 - 1.01)	0.119	32	-0.057 (-0.093,-0.021)	1.08 (1.03 - 1.13)	0.002	0.09	1.07 (1.01 - 1.14)	0.026	1.04 (0.93 - 1.17)	0.504	1.08 (1.03 - 1.12)	0.007	32	0.022 (0.001, 0.044)
NA	NA	21	0.105 (0.044, 0.168)	0.91 (0.78 - 1.07)	0.273	0.724	NA	NA	NA	NA	NA	NA	21	-0.037 (-0.057,-0.017)
1.04 (0.99 - 1.10)	0.175	38	0.049 (0.001, 0.097)	**1.11 (1.05 - 1.16)**	**6.37E-05**	**0.007**	**1.09 (1.03 - 1.15)**	**0.001**	1.12 (0.99 - 1.26)	0.069	**1.11 (1.05 - 1.16)**	**0.002**	**38**	**0.020 (0.003, 0.037)**
1.02 (0.98 - 1.05)	0.393	32	0.005 (-0.003, 0.014)	0.98 (0.95 - 1.00)	0.087	0.586	0.99 (0.96 - 1.02)	0.36	1.01 (0.96 - 1.06)	0.631	0.98 (0.96 - 1.00)	0.082	32	-0.002 (-0.007, 0.002)
NA	NA	21	-0.008 (-0.024, 0.008)	0.95 (0.86 - 1.04)	0.284	0.724	NA	NA	NA	NA	NA	NA	21	-0.002 (-0.010, 0.005)
0.98 (0.92 - 1.05)	0.577	32	0.015 (-0.011, 0.041)	0.96 (0.93 - 0.99)	0.01	0.246	0.97 (0.93 - 1.01)	0.145	0.97 (0.92 - 1.03)	0.374	0.96 (0.93 - 0.99)	0.019	32	-0.003 (-0.010, 0.005)
NA	NA	34	-0.029 (-0.049,-0.009)	0.93 (0.79 - 1.10)	0.392	0.751	0.91 (0.82 - 1.00)	0.052	0.62 (0.46 - 0.83)	0.001	NA	NA	34	-0.039 (-0.053,-0.025)
0.99 (0.96 - 1.03)	0.767	28	-0.014 (-0.023,-0.004)	0.99 (0.95 - 1.03)	0.527	0.853	0.95 (0.92 - 1.00)	0.032	0.93 (0.87 - 0.99)	0.037	0.99 (0.95 - 1.03)	0.54	28	-0.005 (-0.013, 0.002)
NA	NA	19	-0.033 (-0.140, 0.073)	1.06 (0.78 - 1.43)	0.721	0.935	0.97 (0.83 - 1.13)	0.702	5.77 (2.17 - 15.38)	4.58E-04	NA	NA	19	0.002 (-0.006, 0.010)
1.04 (0.92 - 1.19)	0.534	21	0.042 (0.016, 0.069)	1.07 (1.00 - 1.14)	0.039	0.505	1.09 (1.00 - 1.18)	0.038	1.15 (0.88 - 1.51)	0.315	1.07 (1.02 - 1.12)	0.037	21	0.023 (0.000, 0.047)
NA	NA	18	0.064 (0.014, 0.114)	**1.18 (1.07 - 1.30)**	**0.001**	**0.045**	NA	NA	NA	NA	NA	NA	**18**	**0.034 (0.016, 0.052)**
NA	NA	15	-0.057 (-0.115, 0.002)	0.81 (0.70 - 0.95)	0.009	0.233	NA	NA	NA	NA	NA	NA	15	-0.041 (-0.087, 0.004)
0.95 (0.90 - 1.01)	0.136	37	-0.001 (-0.004, 0.002)	1.00 (0.95 - 1.05)	0.934	0.979	1.03 (0.98 - 1.07)	0.268	1.02 (0.92 - 1.13)	0.705	1.00 (0.95 - 1.05)	0.935	37	0.001 (-0.002, 0.003)
1.07 (0.94 - 1.23)	0.358	24	0.052 (0.019, 0.086)	1.15 (1.05 - 1.26)	0.003	0.122	1.18 (1.05 - 1.33)	0.004	1.40 (1.03 - 1.90)	0.033	1.15 (1.06 - 1.25)	0.044	24	-0.048 (-0.134, 0.038)
NA	NA	17	-0.140 (-0.188,-0.092)	**0.77 (0.66 - 0.89)**	**0.001**	**0.045**	NA	NA	NA	NA	NA	NA	**17**	**-0.144 (-0.182,-0.105)**
1.01 (0.97 - 1.05)	0.684	50	-0.007 (-0.021, 0.007)	0.97 (0.94 - 1.01)	0.118	0.622	0.98 (0.95 - 1.02)	0.434	1.01 (0.93 - 1.08)	0.886	0.97 (0.94 - 1.01)	0.13	50	0.017 (0.000, 0.034)
NA	NA	13	0.014 (-0.019, 0.048)	1.00 (0.78 - 1.29)	0.974	0.989	NA	NA	NA	NA	NA	NA	13	-0.055 (-0.119, 0.008)
0.99 (0.89 - 1.09)	0.799	29	0.055 (0.006, 0.103)	**1.11 (1.07 - 1.15)**	**9.12E-08**	**4.02E-05**	**1.09 (1.04 - 1.15)**	**0.001**	1.08 (0.98 - 1.18)	0.107	**1.11 (1.07 - 1.15)**	**1.50E-04**	29	0.002 (-0.004, 0.008)
NA	NA	14	-0.018 (-0.062, 0.026)	1.02 (0.93 - 1.13)	0.625	0.913	1.02 (0.93 - 1.11)	0.719	1.24 (0.99 - 1.56)	0.064	NA	NA	14	0.003 (-0.006, 0.012)
NA	NA	20	-0.044 (-0.085,-0.002)	0.81 (0.72 - 0.92)	0.001	0.06	NA	NA	NA	NA	NA	NA	20	-0.050 (-0.088,-0.012)
NA	NA	15	-0.009 (-0.036, 0.019)	0.80 (0.68 - 0.95)	0.009	0.233	NA	NA	NA	NA	NA	NA	15	0.007 (-0.016, 0.030)
0.98 (0.94 - 1.02)	0.361	35	-0.020 (-0.049, 0.009)	**0.93 (0.90 - 0.95)**	**6.90E-10**	**6.96E-07**	**0.94 (0.91 - 0.97)**	**0.001**	**0.94 (0.90 - 0.99)**	**0.017**	**0.93 (0.90 - 0.95)**	**7.29E-06**	35	-0.012 (-0.024, 0.001)
0.96 (0.88 - 1.05)	0.416	26	-0.009 (-0.030, 0.013)	**0.90 (0.85 - 0.94)**	**2.53E-05**	**0.003**	**0.91 (0.86 - 0.97)**	**0.002**	0.92 (0.81 - 1.03)	0.136	**0.90 (0.85 - 0.94)**	**0.004**	26	-0.008 (-0.031, 0.015)
0.98 (0.91 - 1.05)	0.598	23	-0.011 (-0.036, 0.014)	**0.91 (0.87 - 0.96)**	**3.02E-04**	**0.029**	**0.90 (0.85 - 0.96)**	**0.001**	0.94 (0.83 - 1.06)	0.31	**0.91 (0.87 - 0.96)**	**0.004**	**23**	**-0.025 (-0.044,-0.005)**
0.98 (0.89 - 1.08)	0.692	25	-0.103 (-0.180,-0.027)	0.92 (0.81 - 1.03)	0.142	0.649	0.92 (0.82 - 1.02)	0.126	1.04 (0.53 - 2.04)	0.908	0.92 (0.81 - 1.03)	0.238	25	0.017 (-0.015, 0.049)
0.97 (0.91 - 1.05)	0.512	31	0.012 (-0.016, 0.039)	0.93 (0.88 - 0.97)	0.002	0.082	0.92 (0.87 - 0.97)	0.003	0.92 (0.83 - 1.02)	0.115	0.93 (0.88 - 0.97)	0.017	31	-0.016 (-0.035, 0.004)
0.98 (0.96 - 1.01)	0.274	23	-0.039 (-0.066,-0.011)	0.96 (0.86 - 1.08)	0.508	0.837	0.94 (0.84 - 1.05)	0.296	1.05 (0.76 - 1.44)	0.762	0.96 (0.86 - 1.08)	0.544	23	-0.066 (-0.096,-0.034)
NA	NA	10	0.069 (-0.013, 0.153)	1.34 (1.12 - 1.61)	0.001	0.065	NA	NA	NA	NA	NA	NA	10	0.007 (-0.013, 0.026)
NA	NA	21	-0.008 (-0.033, 0.017)	0.85 (0.75 - 0.96)	0.009	0.233	NA	NA	NA	NA	NA	NA	21	-0.073 (-0.104,-0.044)
1.07 (0.98 - 1.16)	0.208	24	-0.010 (-0.032, 0.013)	1.06 (0.97 - 1.16)	0.217	0.724	1.04 (0.95 - 1.13)	0.446	0.80 (0.50 - 1.30)	0.371	1.06 (0.97 - 1.16)	0.284	24	0.015 (-0.010, 0.041)
0.97 (0.84 - 1.12)	0.684	23	0.038 (0.025, 0.052)	0.90 (0.84 - 0.98)	0.009	0.233	0.89 (0.82 - 0.97)	0.006	0.83 (0.68 - 1.01)	0.068	0.90 (0.85 - 0.96)	0.041	23	-0.062 (-0.082,-0.043)
NA	NA	19	0.056 (-0.014, 0.124)	0.92 (0.78 - 1.07)	0.256	0.724	NA	NA	NA	NA	NA	NA	19	-0.016 (-0.027,-0.004)
1.07 (1.02 - 1.13)	0.011	48	0.024 (0.007, 0.041)	**1.09 (1.05 - 1.13)**	**3.80E-06**	**0.001**	**1.09 (1.04 - 1.13)**	**1.69E-04**	1.06 (0.97 - 1.15)	0.175	**1.09 (1.05 - 1.13)**	**1.09E-04**	**48**	**0.053 (0.033, 0.072)**
0.92 (0.84 - 0.99)	0.069	19	-0.022 (-0.053, 0.010)	0.97 (0.93 - 1.02)	0.28	0.724	0.97 (0.92 - 1.03)	0.315	0.99 (0.91 - 1.09)	0.901	0.97 (0.94 - 1.01)	0.214	19	-0.009 (-0.018,-0.001)
0.95 (0.88 - 1.03)	0.227	22	-0.028 (-0.059, 0.002)	1.00 (0.95 - 1.05)	0.981	0.989	0.99 (0.93 - 1.05)	0.748	1.00 (0.88 - 1.14)	0.975	1.00 (0.97 - 1.03)	0.969	22	-0.004 (-0.011, 0.004)
0.99 (0.95 - 1.04)	0.741	39	0.073 (0.033, 0.113)	**1.06 (1.03 - 1.08)**	**1.50E-06**	**3.04E-04**	**1.05 (1.02 - 1.09)**	**0.002**	**1.05 (1.00 - 1.10)**	**0.031**	**1.06 (1.03 - 1.08)**	**6.09E-05**	39	-0.002 (-0.007, 0.004)
NA	NA	18	0.016 (-0.022, 0.054)	1.02 (0.94 - 1.10)	0.686	0.921	NA	NA	NA	NA	NA	NA	18	-0.002 (-0.009, 0.005)
NA	NA	16	-0.002 (-0.011, 0.006)	0.94 (0.86 - 1.03)	0.169	0.692	0.93 (0.85 - 1.03)	0.156	1.07 (0.42 - 2.77)	0.881	NA	NA	16	0.033 (0.012, 0.055)
1.01 (0.92 - 1.11)	0.848	23	0.012 (-0.007, 0.031)	1.05 (0.99 - 1.11)	0.126	0.634	1.04 (0.98 - 1.11)	0.22	1.04 (0.91 - 1.18)	0.589	1.05 (1.01 - 1.08)	0.052	23	0.000 (-0.001, 0.001)
1.00 (0.94 - 1.07)	0.915	20	-0.007 (-0.023, 0.008)	0.97 (0.87 - 1.08)	0.533	0.854	0.93 (0.83 - 1.04)	0.207	1.24 (0.08 - 19.73)	0.878	0.97 (0.87 - 1.08)	0.577	20	0.012 (-0.004, 0.029)
0.99 (0.95 - 1.03)	0.706	37	0.010 (-0.008, 0.028)	**0.94 (0.92 - 0.97)**	**2.02E-06**	**3.71E-04**	**0.95 (0.92 - 0.98)**	**0.001**	**0.94 (0.90 - 0.98)**	**0.006**	**0.94 (0.92 - 0.97)**	**1.39E-04**	**37**	**-0.014 (-0.026,-0.002)**
0.94 (0.87 - 1.02)	0.167	38	-0.018 (-0.044, 0.008)	0.97 (0.92 - 1.02)	0.266	0.724	0.99 (0.94 - 1.04)	0.596	0.95 (0.85 - 1.05)	0.308	0.97 (0.92 - 1.02)	0.29	38	-0.023 (-0.036,-0.011)
0.98 (0.91 - 1.06)	0.645	26	-0.011 (-0.025, 0.002)	0.90 (0.82 - 1.00)	0.047	0.524	0.91 (0.83 - 1.00)	0.048	1.03 (0.77 - 1.39)	0.817	0.90 (0.82 - 1.00)	0.094	26	-0.017 (-0.037, 0.004)
1.15 (1.06 - 1.24)	0.008	31	0.048 (0.025, 0.072)	**1.13 (1.08 - 1.19)**	**9.86E-07**	**2.21E-04**	**1.12 (1.06 - 1.20)**	**1.37E-04**	1.12 (0.97 - 1.29)	0.112	**1.13 (1.08 - 1.19)**	**0.001**	**31**	**0.067 (0.039, 0.096)**
NA	NA	21	0.023 (-0.012, 0.058)	0.94 (0.87 - 1.02)	0.162	0.684	0.93 (0.84 - 1.02)	0.146	0.87 (0.46 - 1.62)	0.653	NA	NA	21	-0.047 (-0.083,-0.010)
NA	NA	22	0.000 (-0.001, 0.002)	0.99 (0.90 - 1.09)	0.894	0.961	1.02 (0.91 - 1.13)	0.767	0.98 (0.64 - 1.49)	0.924	NA	NA	22	0.011 (-0.006, 0.029)
0.96 (0.81 - 1.13)	0.635	14	0.004 (-0.011, 0.019)	0.94 (0.78 - 1.12)	0.476	0.816	0.92 (0.81 - 1.04)	0.187	1.02 (0.20 - 5.16)	0.977	0.94 (0.78 - 1.12)	0.527	14	-0.025 (-0.075, 0.023)
1.02 (0.97 - 1.07)	0.404	31	0.005 (-0.007, 0.018)	0.99 (0.95 - 1.04)	0.838	0.954	0.98 (0.94 - 1.02)	0.366	0.99 (0.91 - 1.07)	0.76	0.99 (0.95 - 1.04)	0.843	31	0.004 (-0.003, 0.010)
NA	NA	21	0.004 (-0.009, 0.017)	0.94 (0.85 - 1.05)	0.273	0.724	NA	NA	NA	NA	NA	NA	21	-0.009 (-0.027, 0.008)
1.15 (1.08 - 1.22)	**2.55E-04**	**42**	**0.053 (0.023, 0.082)**	**1.12 (1.07 - 1.17)**	**1.20E-07**	**4.02E-05**	**1.10 (1.05 - 1.16)**	**2.46E-04**	**1.12 (1.01 - 1.25)**	**0.035**	**1.12 (1.07 - 1.17)**	**5.95E-05**	**42**	**0.055 (0.032, 0.077)**
1.14 (1.02 - 1.28)	0.068	28	0.036 (0.013, 0.059)	**1.19 (1.11 - 1.27)**	**4.97E-07**	**1.25E-04**	**1.16 (1.07 - 1.25)**	**2.38E-04**	1.09 (0.87 - 1.36)	0.442	**1.19 (1.11 - 1.27)**	**0.004**	**28**	**0.074 (0.036, 0.112)**
1.05 (0.97 - 1.14)	0.238	25	0.005 (-0.011, 0.020)	1.07 (1.01 - 1.14)	0.023	0.364	1.05 (0.97 - 1.13)	0.235	1.33 (0.95 - 1.87)	0.094	1.07 (1.02 - 1.12)	0.03	25	0.018 (0.002, 0.034)
NA	NA	23	-0.004 (-0.021, 0.012)	0.90 (0.80 - 1.00)	0.043	0.513	0.87 (0.76 - 0.99)	0.037	0.74 (0.18 - 3.08)	0.676	NA	NA	23	-0.039 (-0.079, 0.000)