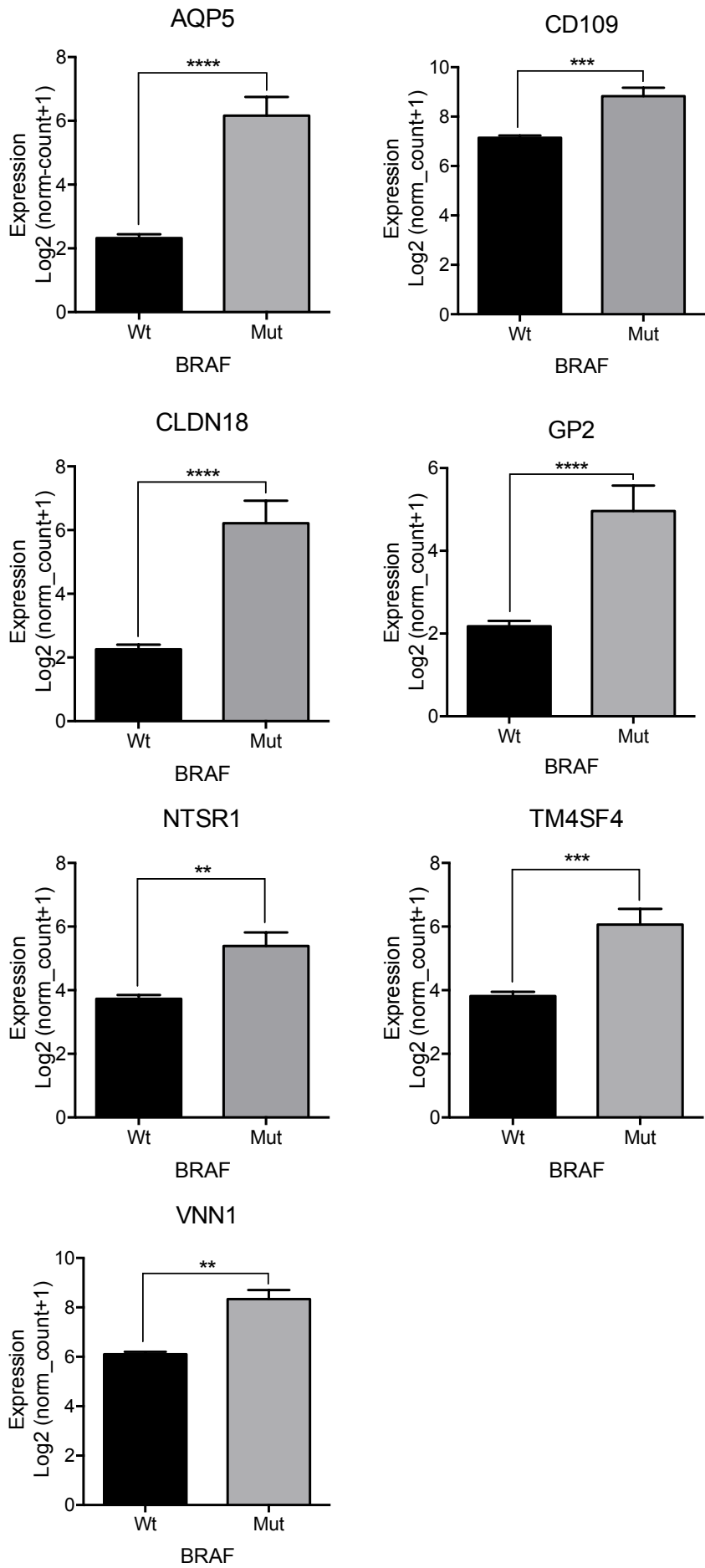
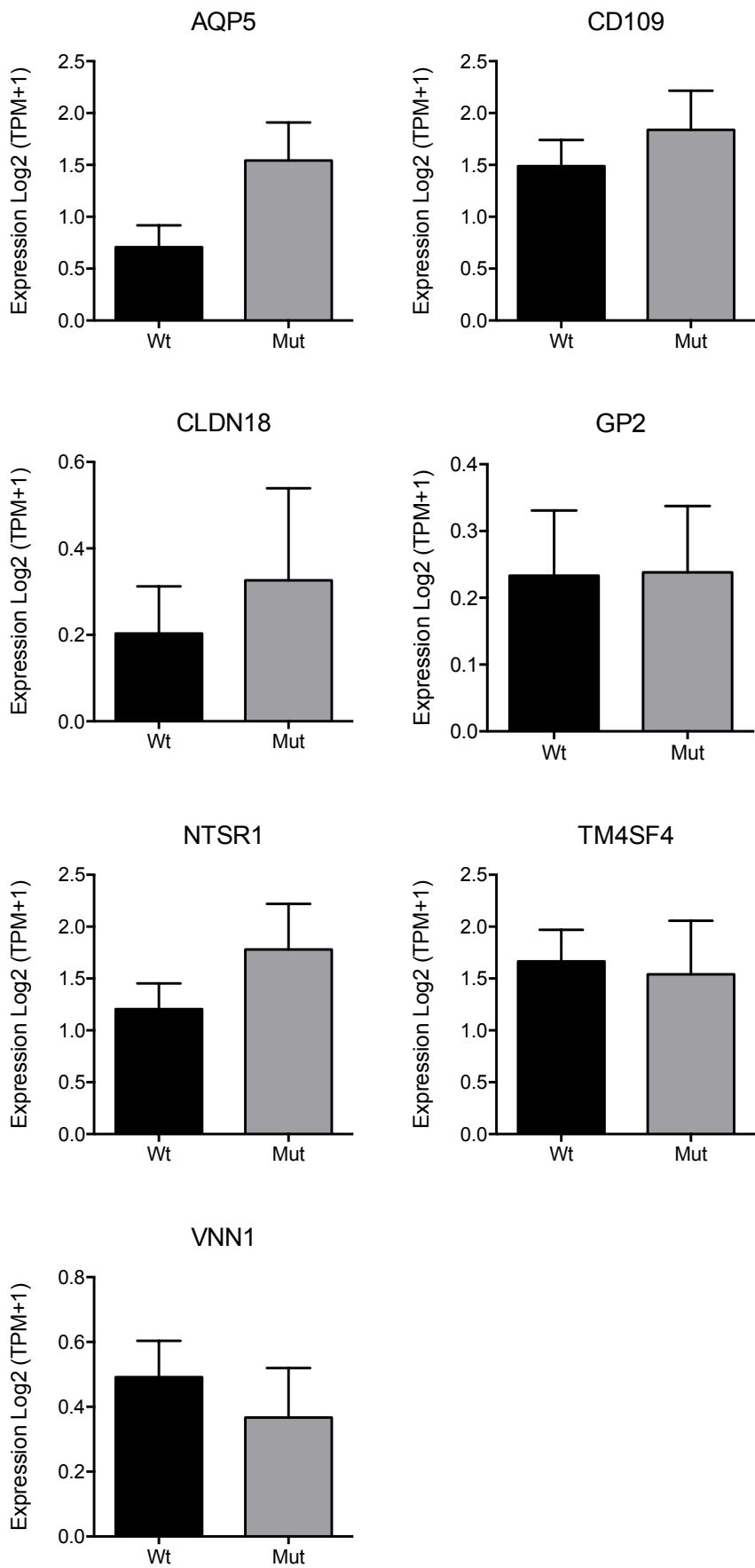


Supplementary Figure S1



Supplementary Figure S2



Supplementary Figure S3

COAD (n=458)				READ (n=166)		
	T cell CD8+	T cell CD4+	DC	T cell CD8+	T cell CD4+	DC
<i>CD74</i>	Rho=0.521 p=1.64e-20	Rho=0.16 p=7.94e-03	Rho=0.717 p=1.13e-44	Rho=0.37 p=3.34e-04	Rho=0.198 p=6.09e-02	Rho=0.497 p=6.44e-07
<i>FCGR2B</i>	Rho=0.398 p=7.32e-12	Rho=0.246 p=3.74e-05	Rho=0.79 p=6.07e-60	Rho=0.36 p=4.84e-04	Rho=0.324 p=1.81e-03	Rho=0.732 p=2.36e-16
<i>HLA-DMA</i>	Rho=0.487 p=8.96e-18	Rho=0.127 p=3.48e-02	Rho=0.672 p=1.66e-37	Rho=0.281 p=7.29e-03	Rho=0.166 p=1.18e-01	Rho=0.416 p=4.54e-05
<i>HLA-DMB</i>	Rho=0.491 p=4.11e-18	Rho=0.152 p=1.14e-02	Rho=0.735 p=5.38e-48	Rho=0.364 p=4.14e-04	Rho=0.232 p=2.81e-02	Rho=0.581 p=1.86e-09
<i>HLA-DOA</i>	Rho=0.458 p=1.109e-15	Rho=0.31 p=1.53e-07	Rho=0.785 p=9.37e-59	Rho=0.393 p=1.29e-04	Rho=0.388 p=1.55e-04	Rho=0.746 p=3.19e-17
<i>HLA-DPA1</i>	Rho=0.516 p=4.17e-20	Rho=0.199 p=8.95e-04	Rho=0.798 p=6.84e-62	Rho=0.392 p=1.35e-04	Rho=0.32 p=2.09e-03	Rho=0.698 p=1.99e-14
<i>HLA-DPB1</i>	Rho=0.522 p=1.26e-20	Rho=0.234 p=9.12e-05	Rho=0.811 p=1.95e-65	Rho=0.353 p=6.41e-04	Rho=0.379 p=2.33e-04	Rho=0.727 p=4.78e-16
<i>HLA-DQA1</i>	Rho=0.435 p=4.14e-14	Rho=0.187 p=1.87e-03	Rho=0.739 p=8.52e-49	Rho=0.306 p=3.39e-03	Rho=0.18 p=9.03e-02	Rho=0.742 p=6.23e-17
<i>HLA-DQB1</i>	Rho=0.351 p=2.15e-09	Rho=0.014 p=8.2e-01	Rho=0.551 p=3.09e-23	Rho=0.201 p=5.75e-03	Rho=0.129 p=2.24e-01	Rho=0.638 p=1.34e-11
<i>HLA-DRA</i>	Rho=0.532 p=1.83e-21	Rho=0.139 p=2.10e-02	Rho=0.767 p=1.54e-54	Rho=0.401 p=9.16e-05	Rho=0.212 p=4.5e-02	Rho=0.638 p=1.29e-11
<i>HLA-DRB1</i>	Rho=0.474 p=7.62e-17	Rho=0.067 p=2.71e-01	Rho=0.69 p=3.77e-40	Rho=0.299 p=4.16e-03	Rho=0.172 p=1.04e-01	Rho=0.691 p=4.6e-14
<i>HLA-DRB5</i>	Rho=0.454 p=2.15e-15	Rho=0.046 p=4.47e-01	Rho=0.631 p=5.81e-32	Rho=0.286 p=6.35e-03	Rho=0.217 p=3.96e-02	Rho=0.682 p=1.31e-13
<i>LAG3</i>	Rho=0.536 p=8.00e-22	Rho=0.173 p=4.10e-03	Rho=0.653 p=7.13e-35	Rho=0.363 p=4.30e-04	Rho=0.262 p=1.25e-02	Rho=0.542 p=3.47e-08

p<0.005, Rho >0.5

p<0.005, Rho= 0-0.5

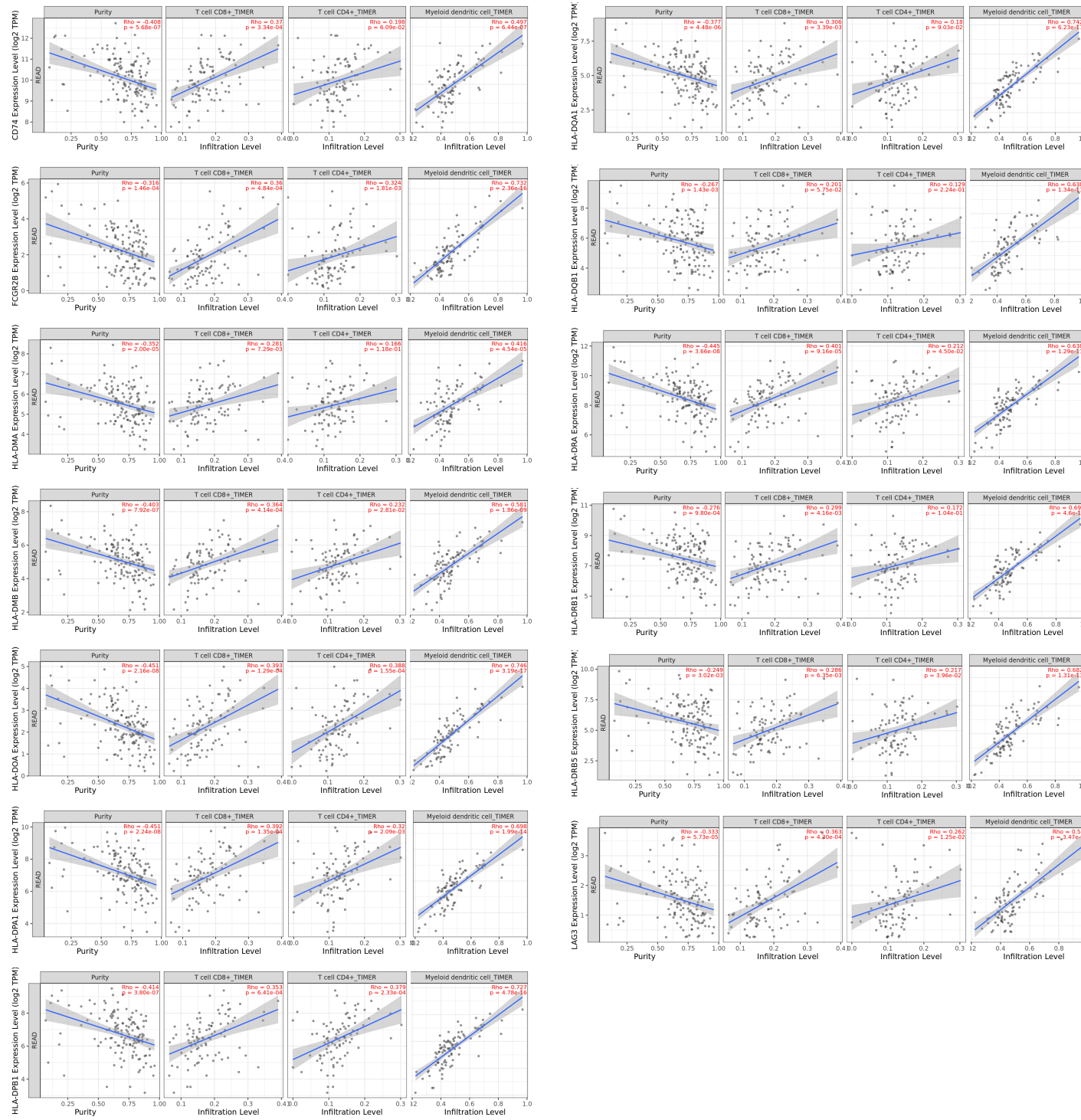
p>0.005

p<0.005, Rho= 0-(-0.5)

p<0.005, Rho <-0.5

Supplementary Figure S4

READ (n=166)



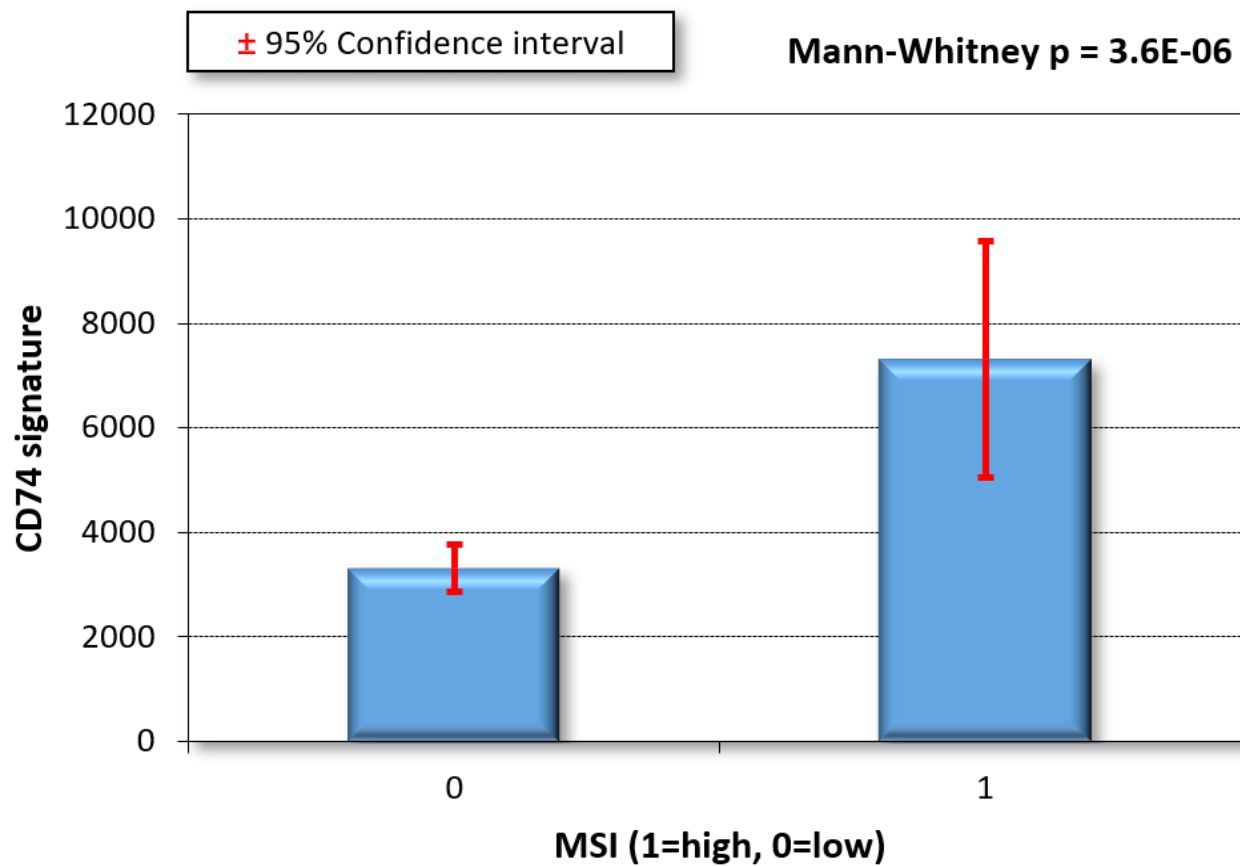
Supplementary Figure S5

COAD (n=458)	T cell CD8 ⁺	T cell CD4 ⁺	DC	Macroph.	MDSCs
<i>CD74</i>	Rho=0.521 p=1.64e-20	Rho=0.16 p=7.94e-03	Rho=0.717 p=1.13e-44	Rho=0.249 p=2.88e-05	Rho=-0.478 p=1.37e-24
<i>FCGR2B</i>	Rho=0.398 p=7.32e-12	Rho=0.246 p=3.74e-05	Rho=0.79 p=6.07e-60	Rho=0.546 p=8.65e-23	Rho=-0.634 p=5.15e-47
<i>HLA-DMA</i>	Rho=0.487 p=8.96e-18	Rho=0.127 p=3.48e-02	Rho=0.672 p=1.66e-37	Rho=0.231 p=1.13e-04	Rho=-0.427 p=2.12e-19
<i>HLA-DMB</i>	Rho=0.491 p=4.11e-18	Rho=0.152 p=1.14e-02	Rho=0.735 p=5.38e-48	Rho=0.311 p=1.47e-07	Rho=-0.542 p=2.00e-32
<i>HLA-DOA</i>	Rho=0.458 p=1.109e-15	Rho=0.31 p=1.53e-07	Rho=0.785 p=9.37e-59	Rho=0.418 p=4.41e-13	Rho=-0.593 p=6.29e-40
<i>HLA-DPA1</i>	Rho=0.516 p=4.17e-20	Rho=0.199 p=8.95e-04	Rho=0.798 p=6.84e-62	Rho=0.382 p=5.38e-11	Rho=-0.570 p=2.52e-36
<i>HLA-DPB1</i>	Rho=0.522 p=1.26e-20	Rho=0.234 p=9.12e-05	Rho=0.811 p=1.95e-65	Rho=0.428 p=1.18e-13	Rho=-0.647 p=1.55e-49
<i>HLA-DQA1</i>	Rho=0.435 p=4.14e-14	Rho=0.187 p=1.87e-03	Rho=0.739 p=8.52e-49	Rho=0.419 p=4.27e-13	Rho=-0.626 p=1.40e-45
<i>HLA-DQB1</i>	Rho=0.351 p=2.15e-09	Rho=0.014 p=8.2e-01	Rho=0.551 p=3.09e-23	Rho=0.21 p=4.44e-04	Rho=-0.434 p=4.45e-20
<i>HLA-DRA</i>	Rho=0.532 p=1.83e-21	Rho=0.139 p=2.10e-02	Rho=0.767 p=1.54e-54	Rho=0.303 p=2.98e-07	Rho=-0.536 p=1.32e-31
<i>HLA-DRB1</i>	Rho=0.474 p=7.62e-17	Rho=0.067 p=2.71e-01	Rho=0.69 p=3.77e-40	Rho=0.269 p=6.25e-06	Rho=-0.528 p=1.70e-30
<i>HLA-DRB5</i>	Rho=0.454 p=2.15e-15	Rho=0.046 p=4.47e-01	Rho=0.631 p=5.81e-32	Rho=0.174 p=3.70e-03	Rho=-0.478 p=1.58e-24
<i>LAG3</i>	Rho=0.536 p=8.00e-22	Rho=0.173 p=4.10e-03	Rho=0.653 p=7.13e-35	Rho=0.194 p=1.20e-03	Rho=-0.403 p=2.73e-17

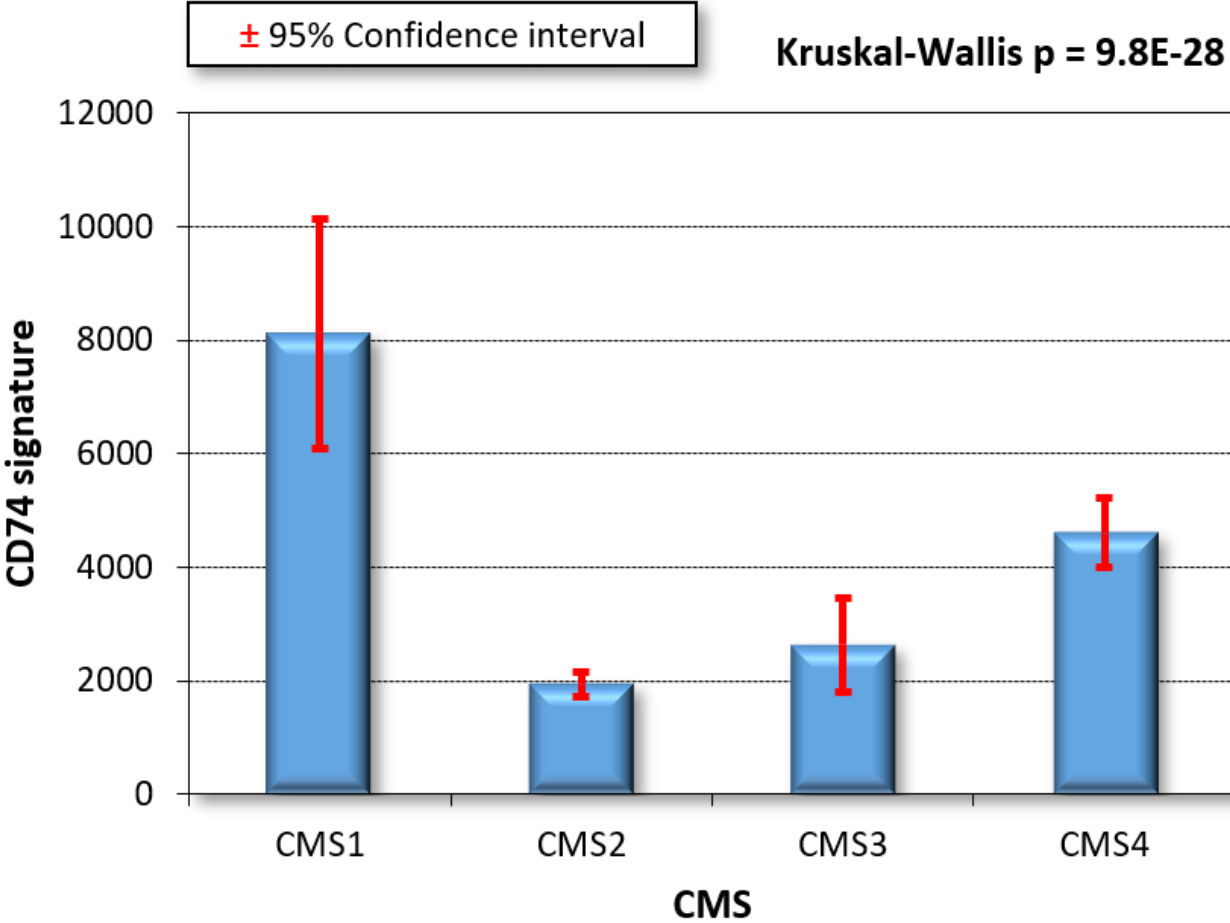


p<0.005, Rho >0.5
p<0.005, Rho= 0-0.5
p>0.005
p<0.005, Rho= 0-(-0.5)
p<0.005, Rho <-0.5

Supplementary Figure S6



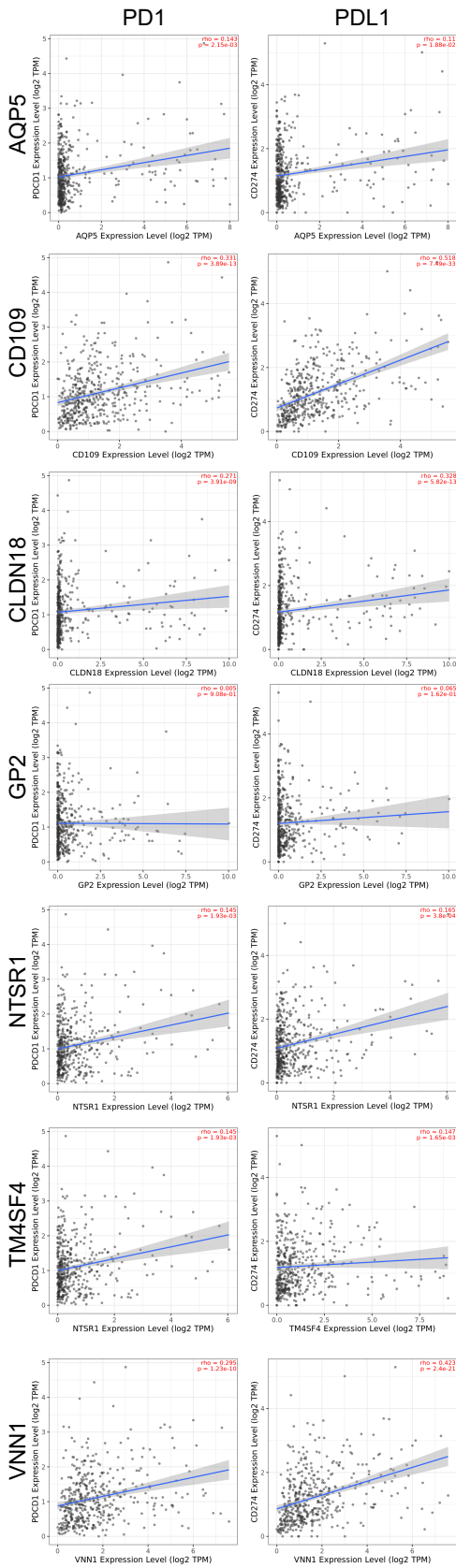
Supplementary Figure S7



Supplementary Figure S8

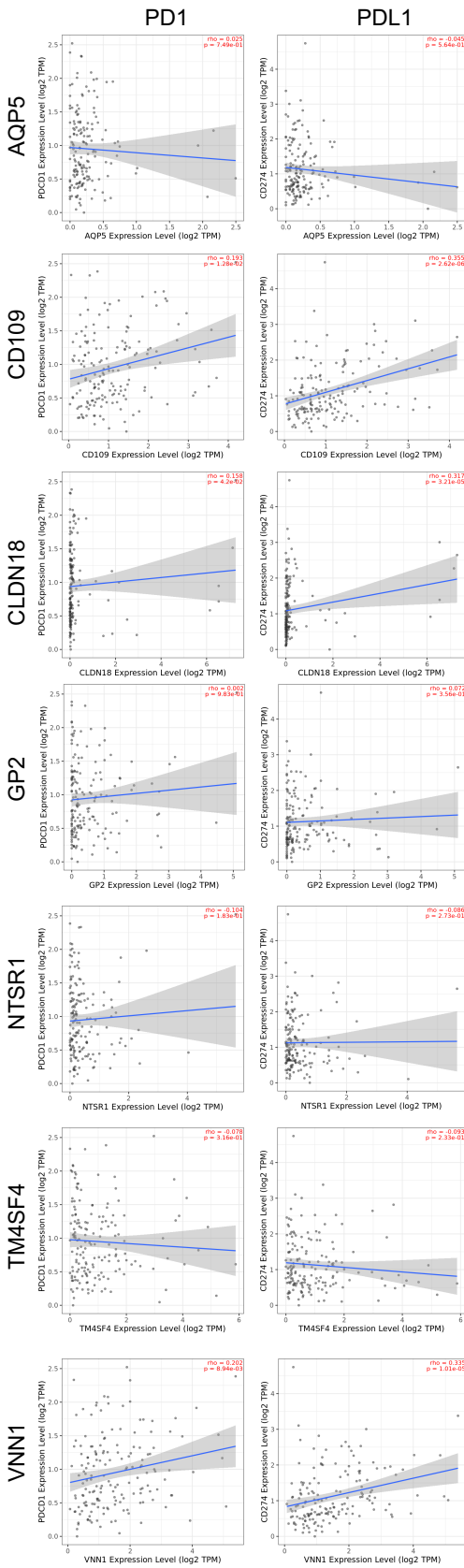
A

COAD (n=458)



B

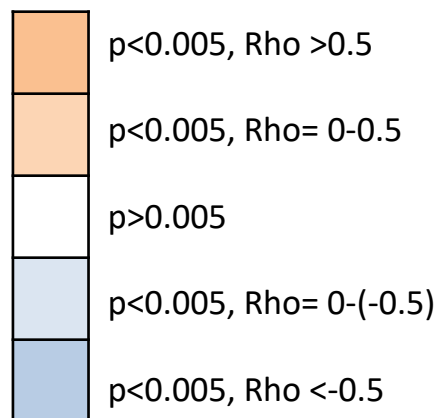
READ (n=166)



Supplementary Figure S9

COAD (n=458)					
	T cell CD8+	T cell CD4+	DC	Macroph.	MDSCs
<i>AQP5</i>	Rho=0.152 p=1.14e-2	Rho=-0.058 p=3.34e-01	Rho=0.117 p=5.26e-02	Rho=-0.08 p=1.86e-01	Rho=0.09 p=6.86e-02
<i>CD109</i>	Rho=0.319 p=6.32e-08	Rho=0.185 p=2.08e-03	Rho=0.617 p=3.22e-30	Rho=0.45 p=3.78e-15	Rho=-0.101 p=4.10e-02
<i>CLDN18</i>	Rho=0.321 p=5.09e-08	Rho=-0.019 p=7.49e-01	Rho=0.319 p=6.33e-08	Rho=0.018 p=7.66e-01	Rho=-0.082 p=9.86e-02
<i>GP2</i>	Rho=0.045 p=4.55e-01	Rho=-0.065 p=2.86e-01	Rho=-0.069 p=2.52e-01	Rho=-0.06 p=3.22e-01	Rho=-0.026 p=6.07e-01
<i>NTSR1</i>	Rho=0.159 p=8.12e-03	Rho=0.054 p=3.69e-01	Rho=0.244 p=4.30e-05	Rho=0.216 p=3.06e-04	Rho=-0 p=9.97e-01
<i>TM4SF4</i>	Rho=0.206 p=6.01e-04	Rho=0.199 p=8.95e-04	Rho=0.16 p=8.00e-03	Rho=0.06 p=3.21e-01	Rho=-0.086 p=8.25e-02
<i>VNN1</i>	Rho=0.378 p=9.16e-11	Rho=-0.105 p=8.20e-02	Rho=0.32 p=5.97e-08	Rho=-0.006 p=9.21e-01	Rho=-0.247 p=4.90e-07

READ (n=166)				
T cell CD8+	T cell CD4+	DC	Macroph.	MDSCs
Rho=-0.204 p=5.41e-02	Rho=0.12 p=2.60e-01	Rho=-0.274 p=9.07e-03	Rho=0.028 p=7.96e-01	Rho=0.139 p=1.03e-01
Rho=0.278 p=8.02e-03	Rho=0.404 p=7.84e-05	Rho=0.53 p=7.65e-08	Rho=0.446 p=1.06e-05	Rho=0.054 p=5.24e-01
Rho=0.021 p=8.46e-01	Rho=0.019 p=2.62e-01	Rho=0.035 p=7.41e-01	Rho=0.057 p=5.94e-01	Rho=0.03 p=7.29e-01
Rho=-0.056 p=5.99e-01	Rho=-0.085 p=4.24e-01	Rho=-0.067 p=5.31e-01	Rho=-0.059 p=5.81e-01	Rho=-0.105 p=2.17e-01
Rho=-0.009 p=9.31e-01	Rho=0.012 p=9.08e-01	Rho=-0.089 p=4.05e-01	Rho=0.008 p=9.38e-01	Rho=-0.079 p=3.54e-01
Rho=-0.054 p=-6.12e-01	Rho=0.32 p=2.09e-03	Rho=0.16 p=8.84e-01	Rho=0.116 p=2.77e-01	Rho=-0.006 p=9.45e-01
Rho=0.239 p=2.31e-02	Rho=0.067 p=5.31e-01	Rho=0.171 p=1.08e-01	Rho=0.168 p=1.14e-01	Rho=-0.347 p=2.85e-05



Supplementary Figure S10

	CD74 signature	AQP5 signature
Number of Immunogenic Mutation		
Correlation coefficient	0.233	0.219
Valid cases	390	390
One-sided significance	1.6E-6	6.3E-06
Number of Binding Expressed PMHC		
Correlation coefficient	0.267	0.244
Valid cases	390	390
One-sided significance	4.1E-08	5.3E-07
Total Number of Mutations		
Correlation coefficient	0.193	0.230
Valid cases	412	412
One-sided significance	3.9E-05	1.1E-06