

Table S1. Univariate associations between genes and overall survival measured by score test p-value.

Gene Symbol	Entrez ID	Gene Description	Discovery p-value	Validation p-value
<i>B2M</i>	567	beta-2-microglobulin	7.18e-01	6.36e-02
<i>CALR</i>	811	calreticulin	1.68e-02	2.69e-01
<i>CANX</i>	821	calnexin	6.88e-01	6.79e-01
<i>CD4</i>	920	CD4 molecule	1.55e-01	7.28e-02
<i>CD74</i>	972	CD74 molecule, major histocompatibility complex, class II invariant chain	7.82e-01	2.01e-03
<i>CD8A</i>	925	CD8a molecule	2.28e-01	2.25e-01
<i>CD8B</i>	926	CD8b molecule	4.37e-01	2.45e-02
<i>CIITA</i>	4261	class II, major histocompatibility complex, transactivator	3.56e-01	1.88e-03
<i>CREB1</i>	1385	cAMP responsive element binding protein 1	5.17e-01	2.44e-01
<i>CTSB</i>	1508	cathepsin B	8.31e-01	4.11e-02
<i>CTSS</i>	1520	cathepsin S	3.91e-01	8.78e-04
<i>HLA-A</i>	3105	major histocompatibility complex, class I, A	1.71e-01	1.54e-02
<i>HLA-B</i>	3106	major histocompatibility complex, class I, B	3.84e-01	3.43e-02
<i>HLA-C</i>	3107	major histocompatibility complex, class I, C	1.40e-01	1.77e-02
<i>HLA-DMA</i>	3108	major histocompatibility complex, class II, DM alpha	2.38e-01	9.21e-04
<i>HLA-DMB</i>	3109	major histocompatibility complex, class II, DM beta	5.54e-02	1.73e-02
<i>HLA-DOA</i>	3111	major histocompatibility complex, class II, DO alpha	2.16e-02	8.27e-01
<i>HLA-DOB</i>	3112	major histocompatibility complex, class II, DO beta	2.09e-05	2.17e-02
<i>HLA-DPA1</i>	3113	major histocompatibility complex, class II, DP alpha 1	7.09e-01	3.11e-03
<i>HLA-DPB1</i>	3115	major histocompatibility complex, class II, DP beta 1	4.50e-01	1.67e-02
<i>HLA-DQA1</i>	3117	major histocompatibility complex, class II, DQ alpha 1	2.32e-01	1.45e-01
<i>HLA-DQB1</i>	3119	major histocompatibility complex, class II, DQ beta 1	4.50e-01	4.23e-03

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<i>HLA-DRA</i>	3122	major histocompatibility complex, class II, DR alpha	2.98e-01	4.77e-04
<i>HLA-DRB4</i>	3126	major histocompatibility complex, class II, DR beta 4	3.68e-01	6.07e-03
<i>HLA-E</i>	3133	major histocompatibility complex, class I, E	6.76e-02	2.10e-03
<i>HLA-F</i>	3134	major histocompatibility complex, class I, F	4.28e-02	5.21e-03
<i>HLA-G</i>	3135	major histocompatibility complex, class I, G	2.81e-02	1.93e-02
<i>HSP90AA1</i>	3320	heat shock protein 90kDa alpha (cytosolic), class A member 1	2.19e-01	3.16e-01
<i>HSP90AB1</i>	3326	heat shock protein 90kDa alpha (cytosolic), class B member 1	3.71e-02	5.24e-01
<i>HSPA1L</i>	3305	heat shock 70kDa protein 1-like	3.93e-03	2.85e-01
<i>HSPA2</i>	3306	heat shock 70kDa protein 2	4.00e-02	3.00e-01
<i>HSPA4</i>	3308	heat shock 70kDa protein 4	4.99e-01	5.22e-01
<i>HSPA5</i>	3309	heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa)	1.08e-01	1.01e-01
<i>HSPA6</i>	3310	heat shock 70kDa protein 6 (HSP70B')	8.49e-01	9.41e-01
<i>IFI30</i>	10437	interferon, gamma-inducible protein 30	3.09e-01	3.85e-02
<i>IFNG</i>	3458	interferon, gamma	1.30e-01	7.77e-02
<i>KIR2DL2</i>	3803	killer cell immunoglobulin-like receptor, two domains, long cytoplasmic tail, 2	7.75e-01	9.03e-02
<i>KIR2DL3</i>	3804	killer cell immunoglobulin-like receptor, two domains, long cytoplasmic tail, 3	7.61e-01	4.33e-01
<i>PDIA3</i>	2923	protein disulfide isomerase family A, member 3	7.30e-01	3.49e-01
<i>PSME1</i>	5720	proteasome (prosome, macropain) activator subunit 1 (PA28 alpha)	4.09e-01	4.52e-05

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<i>PSME2</i>	5721	proteasome (prosome, macropain) activator subunit 2 (PA28 beta)	1.43e-01	3.21e-06
<i>PSME3</i>	10197	proteasome (prosome, macropain) activator subunit 3 (PA28 gamma; Ki)	1.25e-01	5.69e-01
<i>RFX5</i>	5993	regulatory factor X, 5 (influences HLA class II expression)	9.32e-01	8.72e-01
<i>RFXANK</i>	8625	regulatory factor X-associated ankyrin-containing protein	6.27e-01	5.13e-01
<i>RFXAP</i>	5994	regulatory factor X-associated protein	5.32e-01	4.42e-02
<i>TAP1</i>	6890	transporter 1, ATP-binding cassette, subfamily B (MDR/TAP)	2.38e-02	9.79e-04
<i>TAP2</i>	6891	transporter 2, ATP-binding cassette, subfamily B (MDR/TAP)	2.46e-02	1.80e-01
<i>TAPBP</i>	6892	TAP binding protein (tapasin)	1.27e-01	6.83e-02
<i>TNF</i>	7124	tumor necrosis factor	1.26e-01	9.63e-01
<i>CD3E</i>	916	CD3e molecule, epsilon (CD3-TCR complex)	1.32e-02	4.16e-01
<i>CD3G</i>	917	CD3g molecule, gamma (CD3-TCR complex)	5.63e-04	2.92e-01
<i>CD3D</i>	915	CD3d molecule, delta (CD3-TCR complex)	8.71e-03	1.21e-02
<i>CD247</i>	919	CD247 molecule	2.96e-02	1.14e-01
<i>PDCD1</i>	5133	programmed cell death 1	1.64e-01	1.33e-01
<i>CTLA4</i>	1493	cytotoxic T-lymphocyte-associated protein 4	9.47e-02	2.40e-03
<i>PTPRC</i>	5788	protein tyrosine phosphatase, receptor type, C	3.01e-01	7.66e-02
<i>CD28</i>	940	CD28 molecule	9.70e-01	1.66e-01
<i>ICOS</i>	29851	inducible T-cell co-stimulator	1.62e-02	9.49e-02
<i>CD40LG</i>	959	CD40 ligand	5.51e-02	1.83e-01