

Cell type	Gene marker	BLCA TIMER				BLCA TCGA	
		None		Purity		cor	p
		cor	p	cor	p		
B cell	CD19	0.171	***	0.083	0.114	0.190	***
	CD79A	0.146	0.003	0.024	0.641	0.160	0.001
Th1	TBX21	0.341	***	0.257	***	0.360	***
	STAT4	0.303	***	0.195	***	0.360	***
	STAT1	0.431	***	0.370	***	0.480	***
	IFNG	0.378	***	0.324	***	0.430	***
	IL13	0.115	0.020	0.043	0.412	0.100	0.043
Th2	GATA3	-0.431	***	-0.382	***	-0.450	***
	STAT6	-0.305	***	-0.299	***	-0.230	***
	STAT5A	0.090	0.070	0.002	0.976	0.140	0.004
	IL13	0.115	0.020	0.043	0.412	0.100	0.043
CD8+T cell	CD8A	0.374	***	0.307	***	0.420	***
	CD8B	0.301	***	0.240	***	0.330	***
T cell	CD3D	0.153	0.002	0.011	0.838	0.180	***
	CD3E	0.241	***	0.122	0.020	0.280	***
	CD2	0.260	***	0.151	0.004	0.290	***
M1 Macrophages	PTGS2	0.040	0.416	-0.001	0.981	0.064	0.196
	IRF5	-0.115	0.021	-0.099	0.057	-0.094	0.056
	NOS2	0.143	0.004	0.130	0.012	0.170	0.001
M2 Macrophages	MS4A4A	0.426	***	0.376	***	0.460	***
	VSIG4	0.407	***	0.343	***	0.440	***
	CD163	0.449	***	0.399	***	0.470	***
Dendritic cell	ITGAX	0.407	***	0.340	***	0.430	***
	NRP1	0.416	***	0.354	***	0.440	***
	CD1C	-0.060	0.227	-0.169	0.001	-0.031	0.523
NK cell	KIR2DS4	0.287	***	0.221	***	0.280	***
	KIR3DL3	0.276	***	0.190	***	0.049	0.316
	KIR3DL2	0.240	***	0.174	***	0.320	***
	KIR3DL1	0.188	***	0.096	0.065	0.230	***
Neutrophils	CCR7	-0.139	0.005	-0.193	***	-0.150	0.002
	ITGAM	0.379	***	0.320	***	0.410	***
	CEACAM8	0.059	0.233	0.088	0.093	0.011	0.827
Tfh	BCL6	-0.264	***	-0.263	***	-0.220	***
	IL21	0.205	***	0.188	***	0.240	***
Th17	STAT3	0.298	***	0.229	***	0.370	***
	IL17A	-0.015	0.759	-0.015	0.771	-0.014	0.770
Treg	FOXP3	0.318	***	0.241	***	0.330	***
	CCR8	0.291	***	0.210	***	0.320	***
	STAT5B	0.089	0.071	0.103	0.049	0.170	***
	TGFB1	0.128	0.010	0.067	0.202	0.200	***
Mast cell	TPSB2	0.018	0.712	-0.123	0.018	0.033	0.503
	TPSAB1	0.039	0.428	-0.100	0.055	0.058	0.241
	CPA3	0.084	0.091	-0.044	0.395	0.120	0.014
	MS4A2	-0.089	0.073	-0.169	0.001	-0.079	0.109
	HDC	0.018	0.717	-0.100	0.056	0.068	0.169