

## Tables

**Table S1.** Basic characteristics of prostate cancer patients in two cohorts

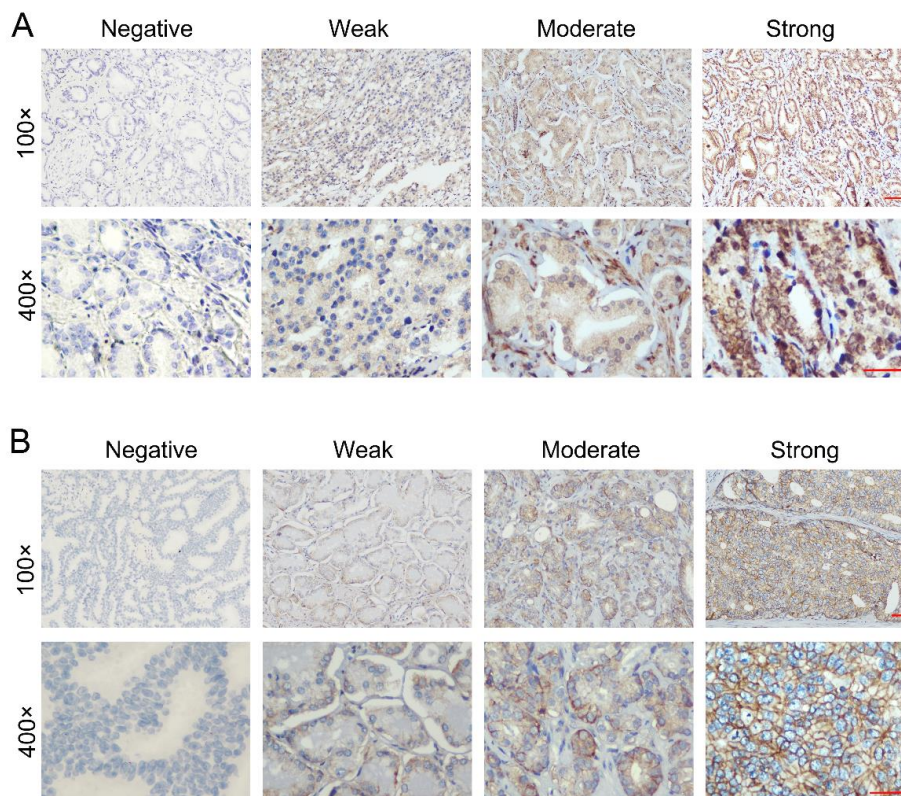
Variables		Training cohort (n=126)		Validation cohort (n=113)	
		Number of cases (%)		Number of cases (%)	
Age(y, range)	Mean	66(42-89)			
	<66	59(46.8%)		41(36.3%)	
	≥66	67(53.2%)		72(63.7%)	
T stage	T2	76(60.3%)		80(70.8%)	
	T3	30(23.8%)		28(24.8%)	
	T4	20(15.9%)		5(4.4%)	
N stage	N0	108(85.7%)		110(97.3%)	
	N1	18(14.3%)		3(2.7%)	
M stage	M0	116(92.1%)		105(92.9%)	
	M1	10(7.9%)		8(7.1%)	
Gleason score	10	4(3.2%)		3(2.7%)	
	9	23(18.2%)		11(9.7%)	
	8	16(12.7%)		9(8.0%)	
	7(4+3)	18(14.3%)		36(31.9%)	
	7(3+4)	24(19.0%)		28(24.8%)	
	≤6	41(32.6%)		26(23.0%)	
PD-L1	Negative	116(91.8%)		107(94.7%)	
	Positive	10(8.2%)		6(5.3%)	
B7-H3	Negative	21(16.7%)		15(12.4%)	
	Positive	105(83.3%)		98(87.6%)	
HHLA2	Negative	39(31.0%)		36(31.9%)	
	Positive	87(69.0%)		77(68.1%)	

**Table S2.** The association of B7 score with clinicopathological characteristics

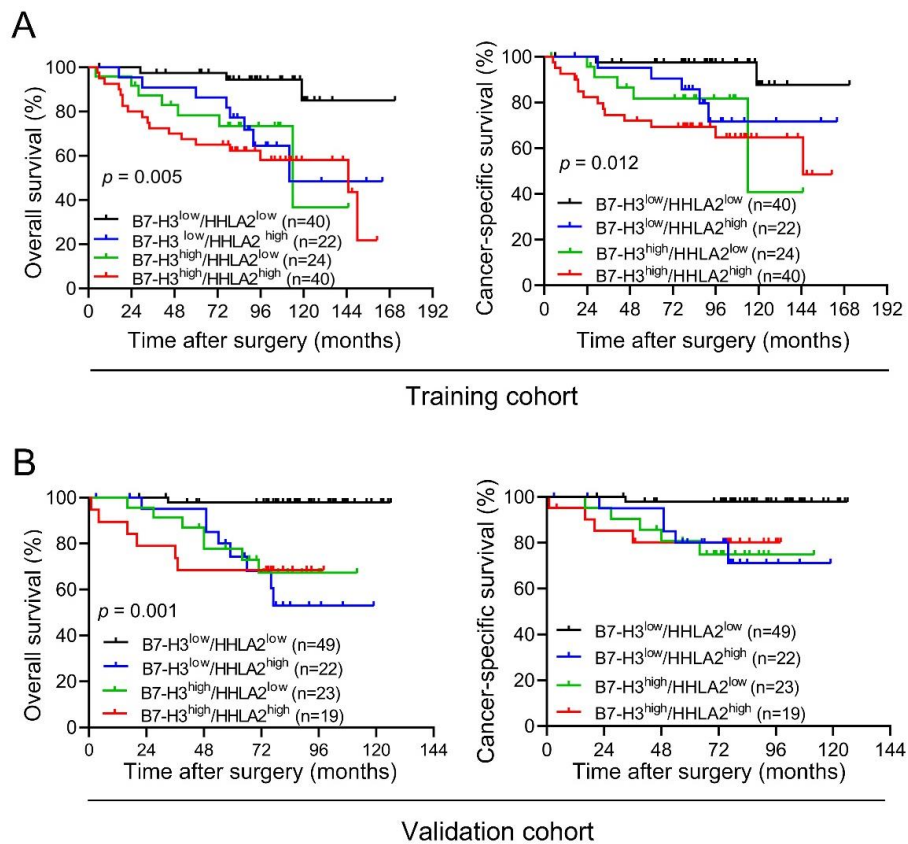
Variables	Training cohort (n=126)				Validation cohort (n=113)			
	Patients NO.	B7 score		<i>p</i> -value	Patients NO.	B7 score		<i>p</i> -value
		Low	High			Low	High	
Age(y)				0.779				0.630
<66	59	18	41		41	19	22	
≥66	67	22	45		72	30	42	
Gleason score				<b>0.040</b>				<b>0.001</b>
6-7(3+4)	65	26	39		54	32	22	
7(4+3)-10	61	14	47		59	17	42	
Tumor stage				<b>0.022</b>				<b>0.002</b>
T2	76	30	46		80	42	38	
T3-4	50	10	40		33	7	26	
Nodal metastasis				<b>0.010</b>				0.257
Absent	108	39	69		110	49	61	
Present	18	1	17		3	0	3	
Distal metastasis				0.168				0.462
Absent	116	39	77		105	47	58	
Present	10	1	9		8	2	6	

*p*-value < 0.05 marked in bold font shows statistically significant.

## Figures



**Figure S1.** Representative micrographs demonstrating varying B7-H3 or HHLA2 expression in prostate cancer by immunohistochemistry. The level of B7-H3 (**A**) and HHLA2 (**B**) expression was graded as intensity of immunohistochemistry staining: 0, absent staining; 1, weak staining; 2, moderate staining; 3, strong staining.



**Figure S2.** Kaplan-Meier survival curves for overall survival and cancer-specific survival of patients with PCa according to B7-H3 and HHLA2 co-expression in training cohort (A) and validation cohort (B).