

**Supplementary material**
**Suppl. Table 1: IRS values for GP88 staining (average of spots/samples per patient).**

<b>IRS</b>	<b>N (patients)</b>
0	187
1.30	1
1.50	41
2.00	26
2.30	5
2.50	1
3.00	37
3.50	11
4.00	46
4.50	2
5.00	1
5.30	1
5.50	5
5.60	1
6.00	26
7.00	1
7.50	3
8.00	24
9.00	5
10.00	2
12.00	12
<b>All</b>	<b>442</b>

GP88 staining could be analyzed for 611 spots/samples for 446 PCa patients. The number of spots/samples per patient on the TMA was 1-3, i.e., 177 patients with one spot/sample, 240 patients with two spots/samples and 18 patients with 3 spots/samples per tumor.

**Suppl. Table 2:** Spearman's correlation between GP88-/CK20 staining and clinico-pathological data.

		Age at diagnosis	Gleason Score at prostatectomy	Tumor stage	PSA at prostatectomy	CK20 IRS	Followup time OS, DSS	Followup time RFS
<b>GP88 IRS</b>	Correlation coefficient	0.008	-0.006	-0.011	<b>.201</b>	<b>.310</b>	<b>-.151</b>	<b>-.149</b>
	Significance (2-sided)	0.867	0.91	0.816	<b>&lt; 0.001</b>	<b>&lt; 0.001</b>	<b>0.001</b>	<b>0.002</b>
	N	442	412	442	374	442	442	
<b>Age at diagnosis</b>	Correlation coefficient		0.055	0.031	0.01	0.006	-0.04	-0.025
	Significance (2-sided)		0.262	0.521	0.85	0.899	0.398	,605
	N		412	442	374	442	442	442
<b>Gleason Score at prostatectomy</b>	Correlation coefficient			<b>.392</b>	-0.003	0.016	-0.03	-.109
	Significance (2-sided)			<b>&lt; 0.001</b>	0.956	0.747	0.545	0.027
	N			412	356	412	412	412
<b>Tumor stage</b>	Correlation coefficient				0.018	0.007	<b>.127</b>	,067
	Significance (2-sided)				0.732	0.882	<b>0.008</b>	.161
	N				374	442	442	442
<b>PSA at prostatectomy</b>	Correlation coefficient					<b>.179</b>	<b>-.218</b>	<b>-.215</b>
	Significance (2-sided)					<b>0.001</b>	<b>&lt; 0.001</b>	<b>&lt;0.001</b>
	N					374	374	374
<b>CK20 IRS</b>	Correlation coefficient						-0.077	-0.73
	Significance (2-sided)						.108	.125
	N						442	442
<b>Followup time OS, DSS</b>	Correlation coefficient							<b>.933</b>
	Significance (2-sided)							<b>&lt;0.001</b>
	N							442

 After Bonferroni correction the  $\alpha$ -level of significance is at  $\alpha=0.00833$ .

Significant values are marked in bold face

Suppl. Table 3A Cross table: GP88 IRS in groups and PSA values in groups.

			PSA in groups		N	P-value
			<4 ng	≥ 4 ng		
GP88	IRS<2	N	120	80	200	
	IRS≥2	N	74	100	174	
<b>All</b>		N	194	180	374	<b>0.001</b>

Significant value is marked in bold face.

Suppl. Table 3B Cross table: GP88 IRS in groups and CK20 IRS in groups.

			CK20_IRS in groups		N	P-value
			IRS<2	IRS≥2		
GP88	IRS<2	N	194	39	233	
	IRS≥2	N	120	89	209	
<b>All</b>		N	314	128	442	<b>0.001</b>

Significant value is marked in bold face.



Suppl. Tab. 4 Association of GP88/CK20 staining with mean OS and mean DSS.

		Kaplan-Meier analysis				
		N	OS	DSS		
			Months	P	Months	P
				<b>0.005</b>		<b>0.015</b>
GP88-/CK20-	Group 0	194	186.8		216.1	
GP88-/CK20+	Group 1	39	217.4		237.5	
GP88+/CK20-	Group 2	120	162.3		197.5	
GP88+/CK20+	Group 3	89	168.5		208.4	

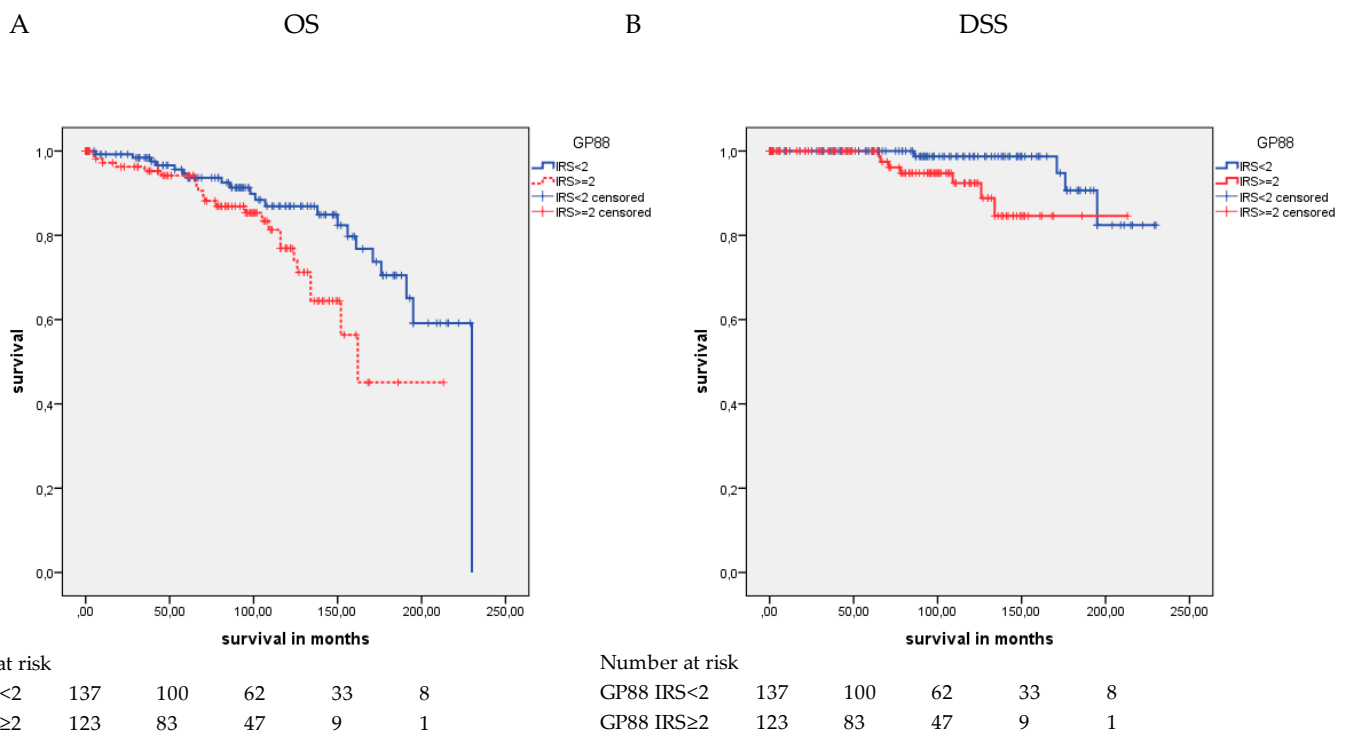
Group 1 is the reference group. The P-value is calculated over all groups. Significant values are in bold face.

**Suppl.** Table 5 Univariate and Multivariate Cox's regression analyses: Association of GP88/CK20 staining with OS and DSS.

		Univariate Cox's regression analysis					Multivariate Cox's regression analysis				
		N	OS		DSS		N	OS		DSS	
			HR (95% CI)	P	HR (95% CI)	P		HR (95% CI)	P	HR (95% CI)	
20-	Group 0	194	2.5 (0.78-8.26)	0.119	2.0 (0.3-15.8)	0.501	182	3.4 (0.9-14.2)	0.092	2.0 (0.2-16.0)	
20+	Group 1	39	reference		reference		37	reference		reference	
20-	Group 2	120	4.9 (1.5-16.1)	<b>0.008</b>	6.3 (0.8-48.6)	0.077	114	6.0 (1.4-25.4)	<b>0.014</b>	5.5 (0.7-42.0)	
20+	Group 3	89	3.7 (1.1-12.5)	<b>0.035</b>	2.5 (0.3-22.2)	0.421	79	4.5 (1.0-19.5)	<b>0.045</b>	2.8 (0.3-25.0)	

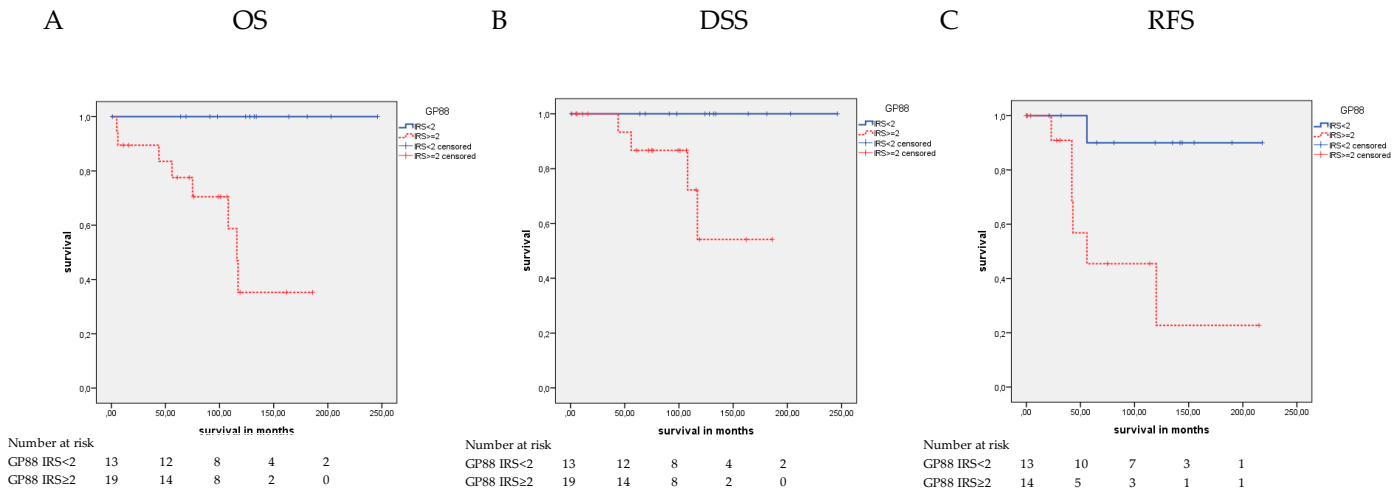
Significant values are marked in bold face.

**Supplemental Figures**



Suppl. Fig. 1 Kaplan-Meier analyses: Association of GP88 staining with prognosis in tumor stage 2 PCa patients

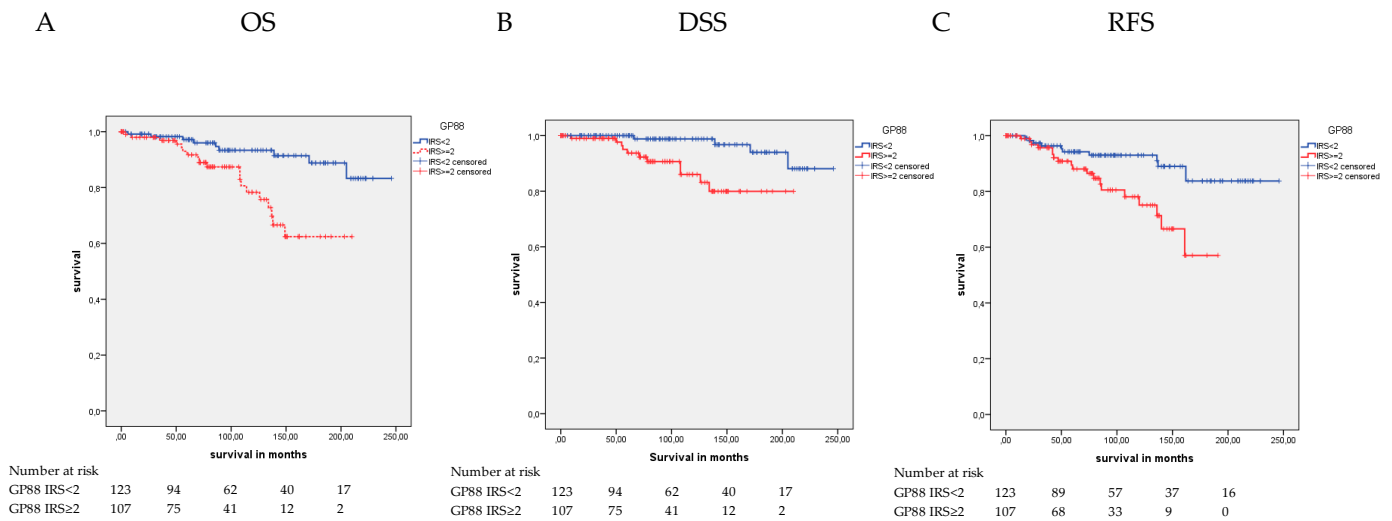
GP88 protein expression was associated with (A) OS (P=0.020) and (B) DSS (P=0.021; all log rank test)



Suppl. Fig. 2 Kaplan-Meier analyses: Association of GP88 staining with prognosis in GS7b (GS8\*) PCa patients

GP88 protein expression was associated with (A) OS (P=0.004), (B) DSS (P=0.029) and (C) RFS\* (P=0.008, all log rank tests).

\* GS8\* – Gleason Score 8 group for RFS (Gleason score 7b group for OS and DSS)

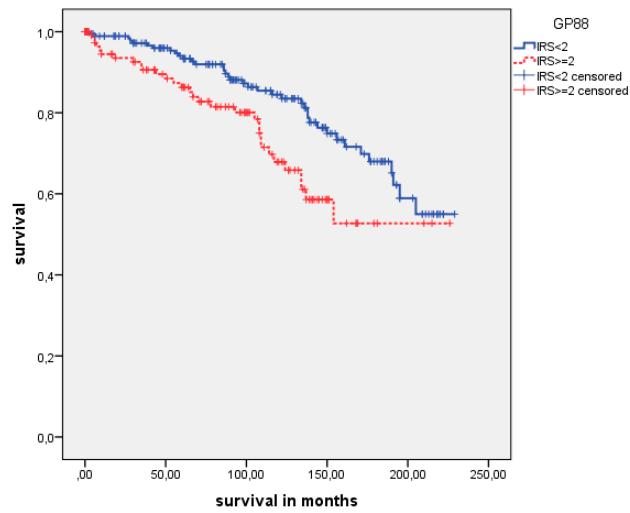


Suppl. Fig. 3 Kaplan-Meier analyses: Association of GP88 staining with prognosis in younger PCa patients (≤65 years)

GP88 protein expression was associated with (A) OS (P=0.001), (B) DSS (P=0.003) and (C) RFS (P=0.004; all log rank tests)

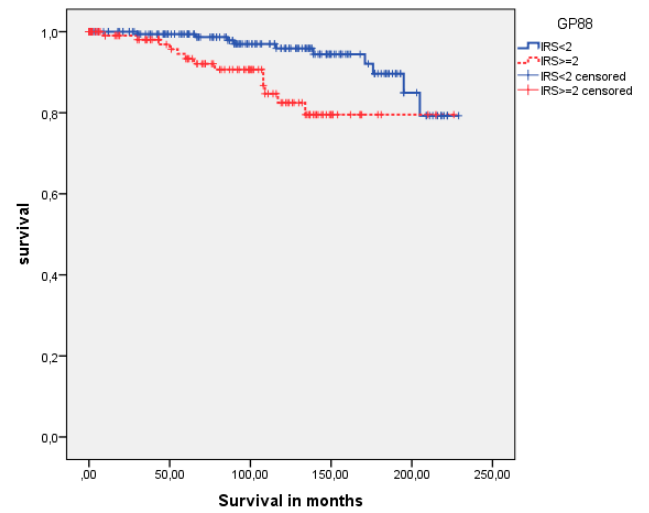
A

OS



B

DSS



Suppl. Fig. 4 Kaplan Meier analysis: Association of GP88 staining with prognosis in CK20 negative PCa patients

GP88 protein expression was associated with (A) OS ( $P=0.009$ ), (B) DSS ( $P=0.005$ ; all log rank tests)