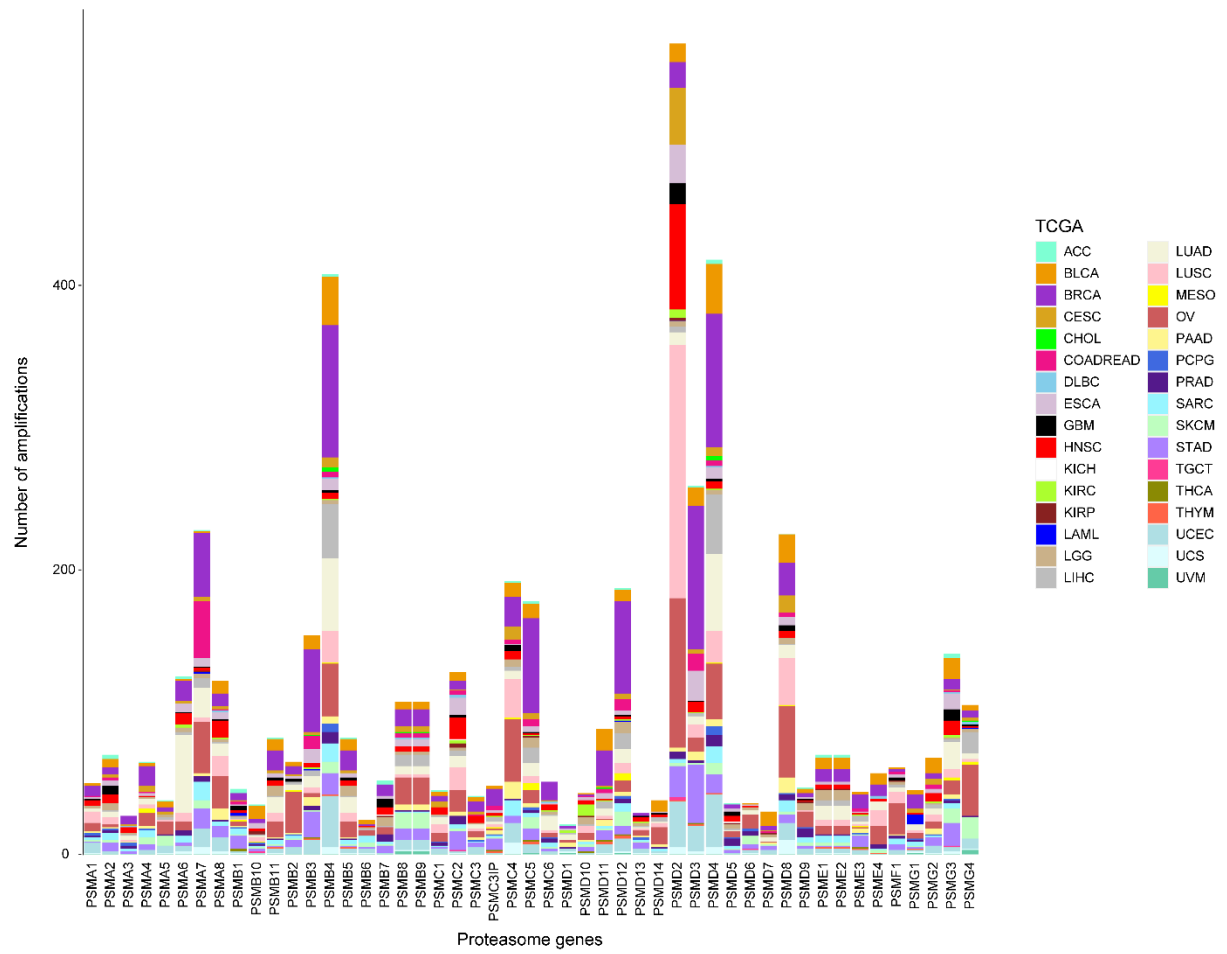
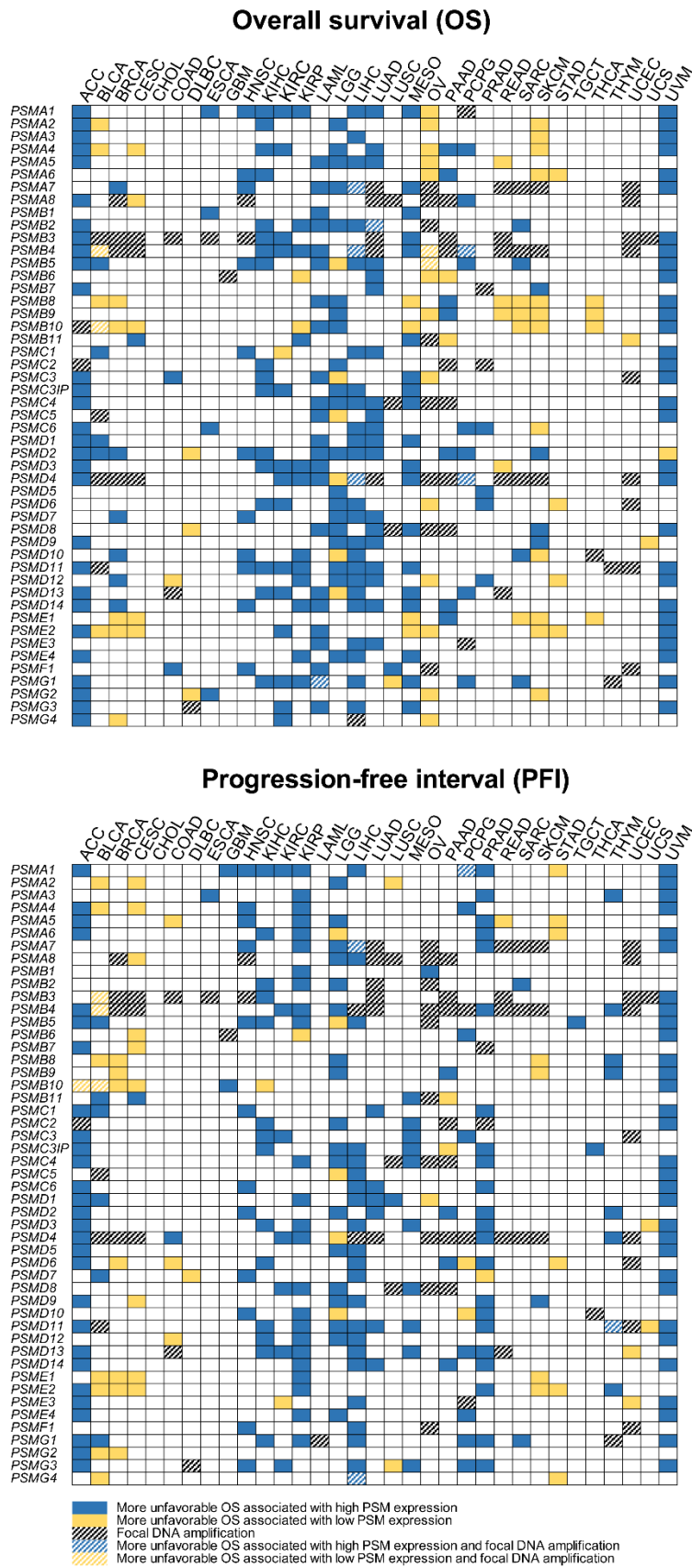


## Supplementary Figure 2.



**Supplementary Figure 2.** Stacked bar chart depicting the number of amplifications per PSM gene in the 32 cancer types.

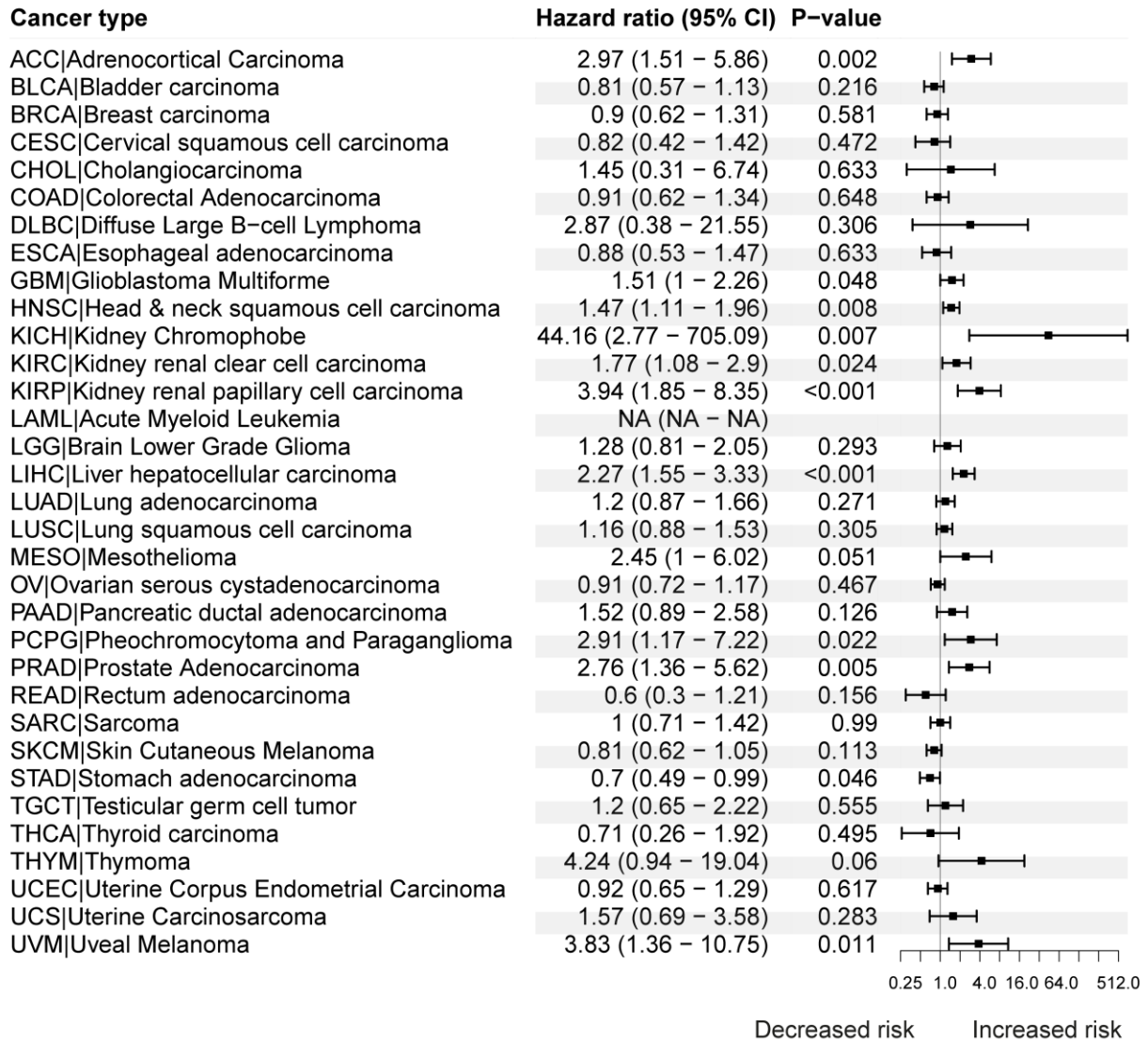
### Supplementary Figure 3.



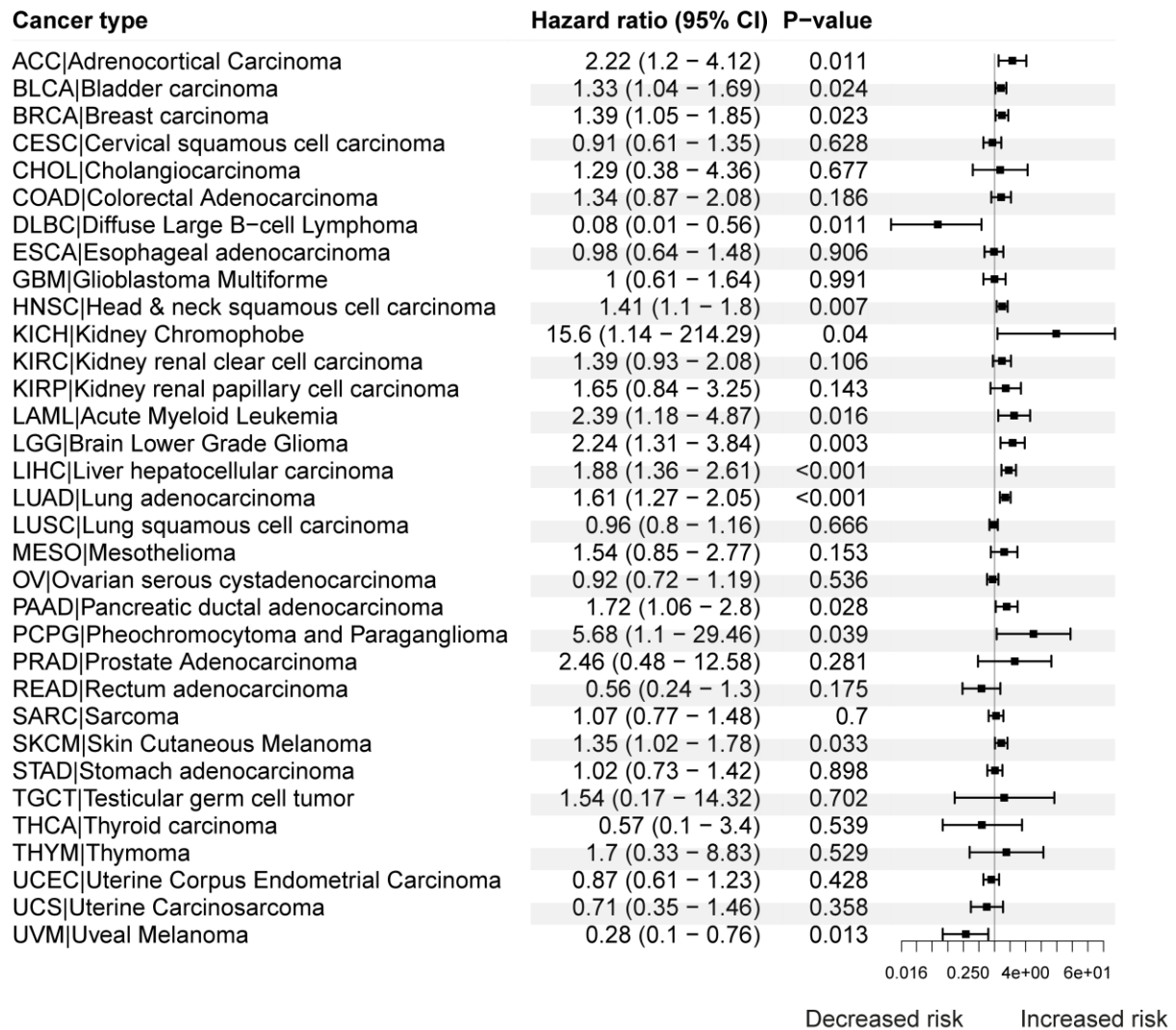
**Supplementary Figure 3.** PSM focal amplification and gene expression associated with patient survival (OS and PFI).

**Supplementary Figure 4.**

**PSMA1 (PFI)**



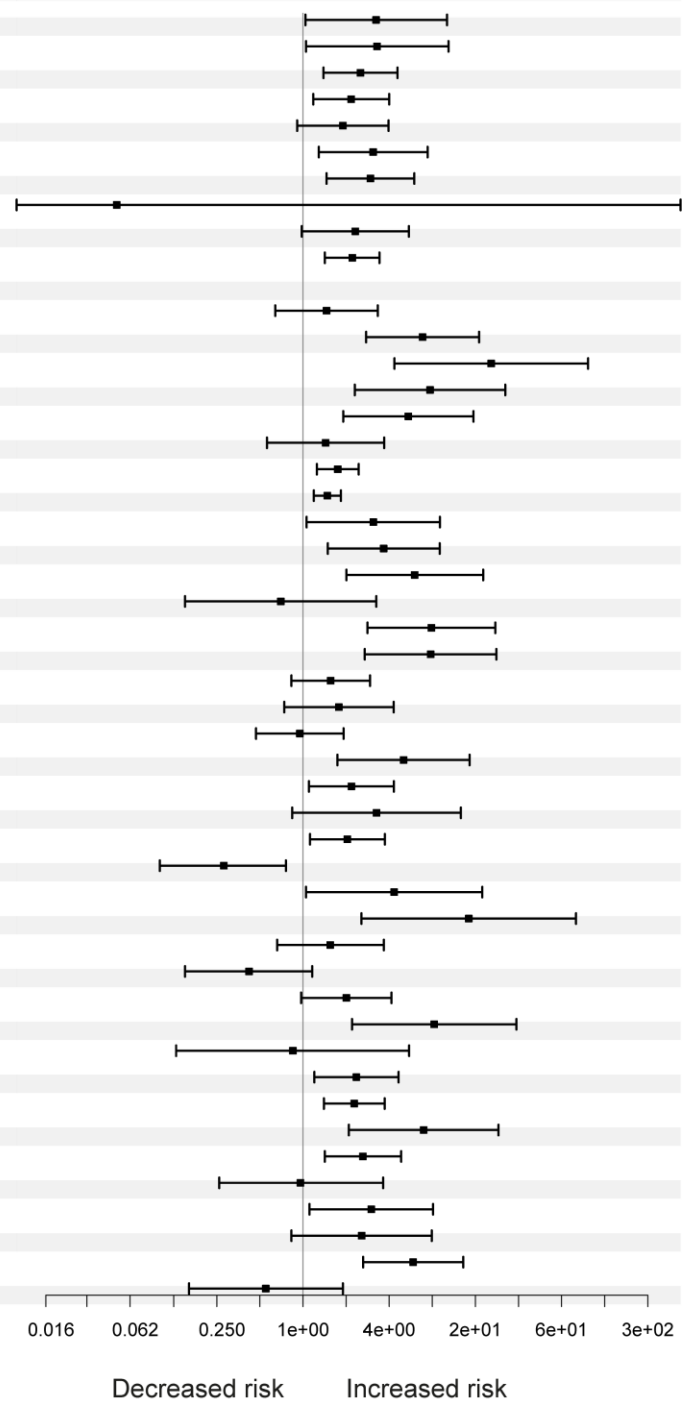
# PSMD2 (OS)



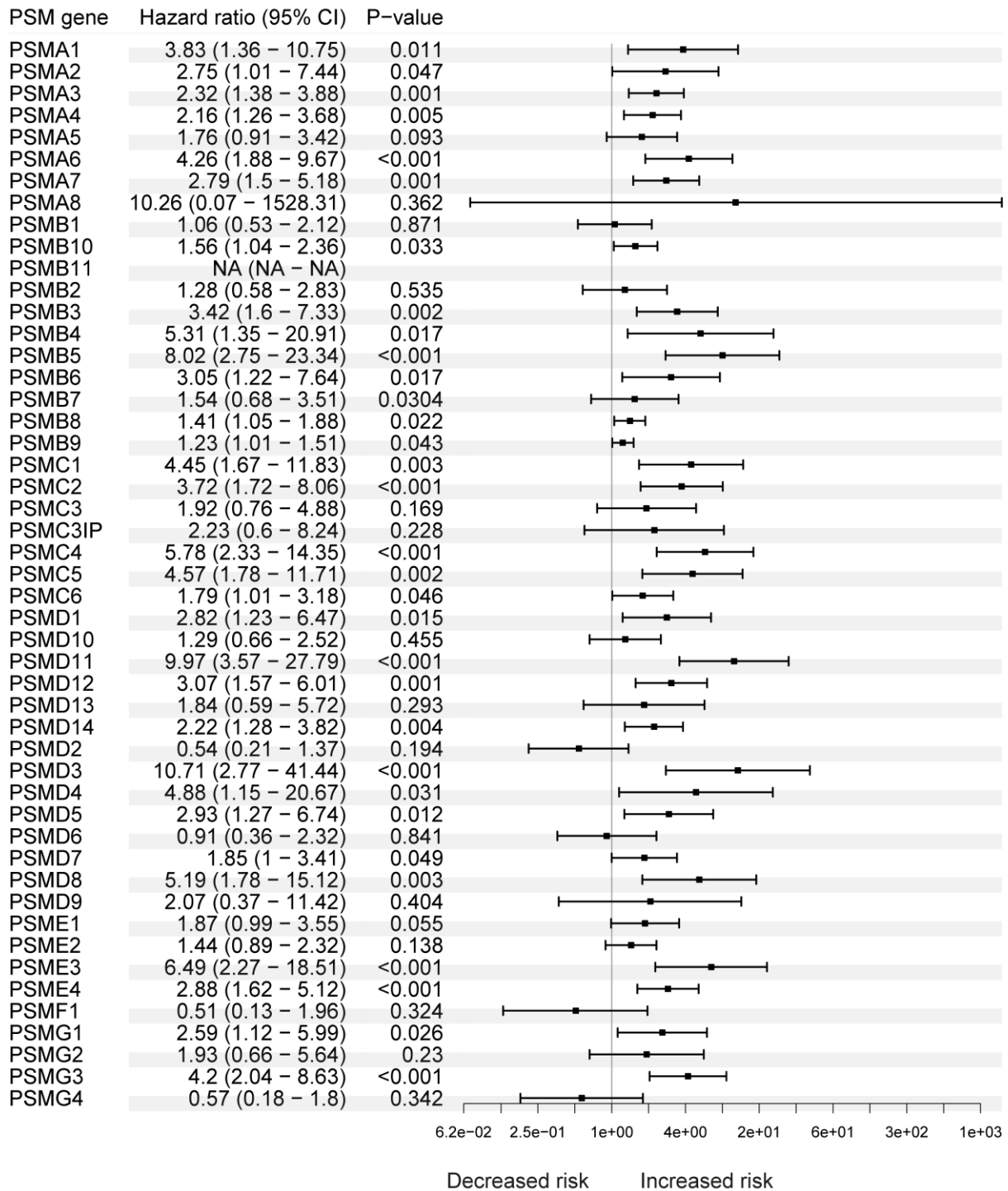
# UVM (OS)

**PSM gene Hazard ratio (95% CI) P-value**

PSM gene	Hazard ratio (95% CI)	P-value
PSMA1	3.24 (1.04 - 10.14)	0.043
PSMA2	3.29 (1.05 - 10.38)	0.042
PSMA3	2.52 (1.39 - 4.57)	0.002
PSMA4	2.17 (1.18 - 4)	0.013
PSMA5	1.9 (0.91 - 3.96)	0.087
PSMA6	3.09 (1.29 - 7.42)	0.011
PSMA7	2.96 (1.46 - 5.99)	0.003
PSMA8	0.05 (0.01 - 433.84)	0.516
PSMB1	2.32 (0.98 - 5.49)	0.056
PSMB10	2.21 (1.42 - 3.42)	<0.001
PSMB11	NA (NA - NA)	
PSMB2	1.46 (0.64 - 3.33)	0.364
PSMB3	6.84 (2.76 - 16.98)	<0.001
PSMB4	20.63 (4.35 - 97.96)	<0.001
PSMB5	7.72 (2.3 - 25.87)	<0.001
PSMB6	5.44 (1.91 - 15.51)	0.002
PSMB7	1.44 (0.56 - 3.69)	0.453
PSMB8	1.75 (1.25 - 2.45)	0.001
PSMB9	1.48 (1.19 - 1.84)	<0.001
PSMC1	3.1 (1.06 - 9.04)	0.038
PSMC2	3.66 (1.49 - 9.01)	0.005
PSMC3	6.03 (2.01 - 18.14)	0.001
PSMC3IP	0.7 (0.15 - 3.25)	0.649
PSMC4	7.88 (2.82 - 22.03)	<0.001
PSMC5	7.79 (2.7 - 22.41)	<0.001
PSMC6	1.56 (0.83 - 2.94)	0.165
PSMD1	1.78 (0.74 - 4.3)	0.198
PSMD10	0.95 (0.47 - 1.92)	0.892
PSMD11	5.04 (1.74 - 14.57)	0.003
PSMD12	2.18 (1.1 - 4.31)	0.025
PSMD13	3.26 (0.84 - 12.67)	0.089
PSMD14	2.04 (1.12 - 3.73)	0.02
PSMD2	0.28 (0.1 - 0.76)	0.013
PSMD3	4.33 (1.05 - 17.87)	0.043
PSMD4	14.38 (2.56 - 80.7)	0.002
PSMD5	1.55 (0.66 - 3.67)	0.313
PSMD6	0.42 (0.15 - 1.16)	0.094
PSMD7	2.01 (0.97 - 4.15)	0.06
PSMD8	8.25 (2.2 - 30.96)	0.002
PSMD9	0.85 (0.13 - 5.51)	0.866
PSME1	2.36 (1.2 - 4.65)	0.013
PSME2	2.28 (1.4 - 3.72)	<0.001
PSME3	6.96 (2.09 - 23.19)	0.002
PSME4	2.62 (1.42 - 4.85)	0.002
PSMF1	0.96 (0.26 - 3.63)	0.957
PSMG1	3 (1.11 - 8.1)	0.03
PSMG2	2.57 (0.83 - 7.93)	0.1
PSMG3	5.88 (2.63 - 13.16)	<0.001
PSMG4	0.55 (0.16 - 1.9)	0.341



# UVM (PFI)



**Supplementary Figures 4.** Forest plots depicting multivariable Cox regression analysis and prognostic relevance (OS and PFI). PSM gene expression patterns in UVM patients and PSM gene (*PSMA1* and *PSMD2*) expression patterns and survival risk in 33 cancer types. HR <1 depicts the association between high PSM gene expression and decreased risk of survival, whereas HR >1 illustrates the association between high PSM gene expression and increased risk of survival.