

**Supplementary Table 1** The differences analysis of the PDE4D and the p-TPL2 expressions between in bladder cancer tissues and in adjacent normal tissues

Expression		Mean $\pm$ Std. Deviation	P value	Z value
PDE4D	Cytoplasm (tumor)	1.663 $\pm$ 0.643	<b>0.009</b>	-2.613
	Cytoplasm (tumor-adjacent)	2.118 $\pm$ 0.616		
p-TPL2	Cytoplasm (tumor)	6.606 $\pm$ 1.903	<b>0.003</b>	-2.985
	Cytoplasm (tumor-adjacent)	4.542 $\pm$ 2.245		
	Nuclear (tumor)	1.576 $\pm$ 1.480	0.261	-1.125
	Nuclear (tumor-adjacent)	1.875 $\pm$ 1.296		

The non-parametric Wilcoxon signed-rank test was used for comparison.

Values of  $P < 0.05$  were considered statistically significant.

**Supplementary Table 2** Statistical analysis of the correlations among PDE4D expression, p-TPL2 expression and clinicopathological parameters

		Characteristic				
		Both sexes	Age (45~75)	Tumor size	TNM stage	Distant metastasis
PDE4D expression	Correlation Coefficient	-.090	<b>-.356</b>	.135	<b>-.241</b>	.195
	Sig.(2-tailed)	.401	<b>.001</b>	.215	<b>.037</b>	.096
p-TPL2 expression	Correlation Coefficient	-.060	-.075	-.213	<b>.538</b>	-.252
	Sig.(2-tailed)	.781	.729	.330	<b>.021</b>	.235

Abbreviations: TNM indicates tumor node metastasis.

Correlation coefficient: ranges from -1 to +1; -1 indicates the strongest possible disagreement and +1 the strongest possible agreement.

Sig. (2-tailed):  $<0.01$  or  $<0.05$  are statistically significant.

Correlation coefficient and Sig. (2-tailed) were obtained from spearman correlation.