

Figure S1 OS stratified by number of oncogene mutations. Compound mutations were also associated with worse median OS (none: 94.2 months, one: 96.1 months, two: 62.8 months, $P=0.02$).

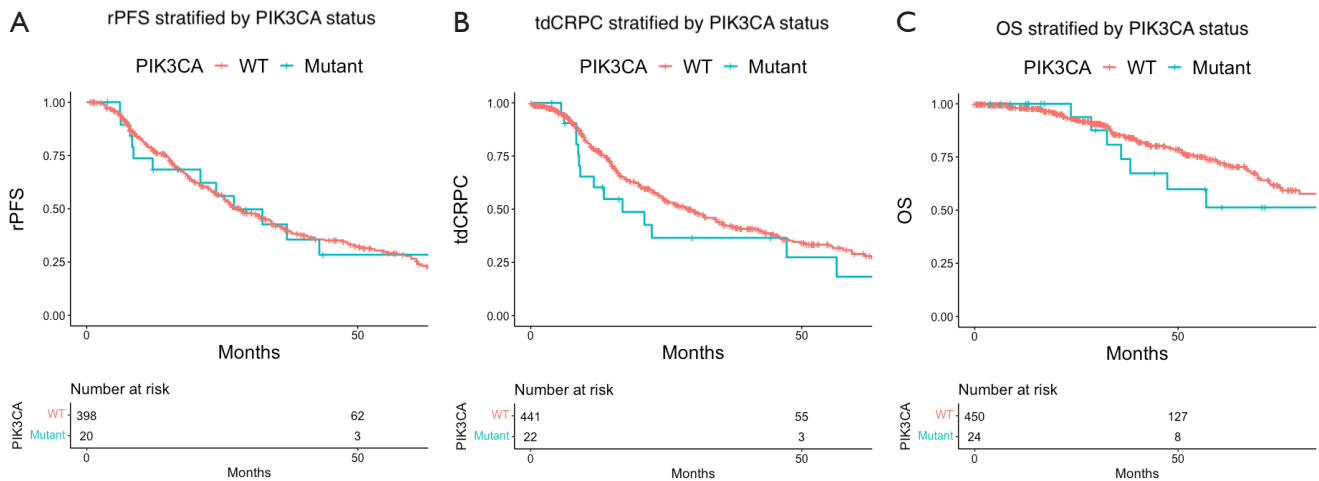


Figure S2 rPFS (A), tdCRPC (B), and OS stratified by *PIK3CA* mutational status. *PIK3CA* mutations were not associated with rPFS (27.1 vs. 28.2 months, $P=0.59$), tdCRPC (16.9 vs. 29.1 months, $P=0.26$), or OS (NR vs. 96.1 months, $P=0.44$).

Table S1 Oncogene mutation frequency

Mutation	Frequency
<i>AKT1</i>	8 (4.7%)
<i>AKT2</i>	2 (1.2%)
<i>AKT3</i>	1 (0.58%)
<i>ALK</i>	2 (1.2%)
<i>BRAF</i>	10 (5.8%)
<i>CCND1</i>	10 (5.8%)
<i>CCND2</i>	2 (1.2%)
<i>CCND3</i>	2 (1.2%)
<i>CTNNB1</i>	22 (12.8%)
<i>EGFR</i>	3 (1.7%)
<i>ERBB2</i>	1 (0.58%)
<i>FGFR1</i>	9 (5.2%)
<i>FGFR2</i>	1 (0.58%)
<i>HRAS</i>	6 (3.5%)
<i>KRAS</i>	6 (3.5%)
<i>MDM2</i>	2 (1.2%)
<i>MET</i>	2 (1.2%)
<i>MITF</i>	1 (0.58%)
<i>MYC</i>	29 (16.9%)
<i>NOTCH1</i>	2 (1.2%)
<i>NOTCH2</i>	3 (1.7%)
<i>NOTCH3</i>	5 (2.9%)
<i>NRAS</i>	3 (1.7%)
<i>PIK3CA</i>	24 (14%)
<i>PIK3CB</i>	5 (2.9%)
<i>PIK3R1</i>	8 (4.7%)
<i>RET</i>	3 (1.7%)

Table S2 Univariate factors associated with rPFS, tdCRPC, and OS

Characteristic	HR (95% CI)	P value
rPFS		
Oncogene mutation	1.35 (1.03–1.77)	0.03
Gleason group	1.07 (0.95–1.20)	0.24
Met location (vs. bone)		
Node	0.95 (0.71–1.27)	0.72
Visceral	1.23 (0.86–1.76)	0.25
<i>De novo</i> metastasis	1.26 (0.99–1.61)	0.06
Low volume (vs. high)	0.71 (0.55–0.91)	0.01
Age	1.03 (1.02–1.05)	0.0001
tdCRPC		
Oncogene mutation	1.81 (1.37–2.40)	<0.0001
Gleason group	1.39 (1.21–1.60)	<0.0001
Met location (vs. bone)		
Node	0.50 (0.36–0.70)	<0.0001
Visceral	1.58 (1.11–2.25)	0.01
<i>De novo</i> metastasis	2.17 (1.67–2.82)	<0.0001
Low volume (vs. high)	0.35 (0.27–0.45)	<0.0001
Age	1.04 (1.02–1.06)	<0.0001
OS		
Oncogene mutation	1.78 (1.16–2.73)	0.01
Gleason group	1.51 (1.18–1.94)	0.0003
Met location (vs. bone)		
Node	0.53 (0.30–0.93)	0.03
Visceral	1.92 (1.14–3.24)	0.01
<i>De novo</i> metastasis	2.22 (1.67–2.82)	0.0001
Low volume (vs. high)	0.39 (0.26–0.59)	<0.0001
Age	1.04 (1.02–1.07)	0.0004