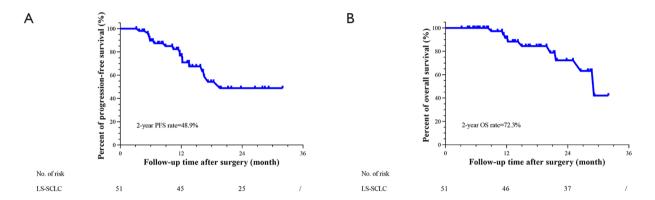
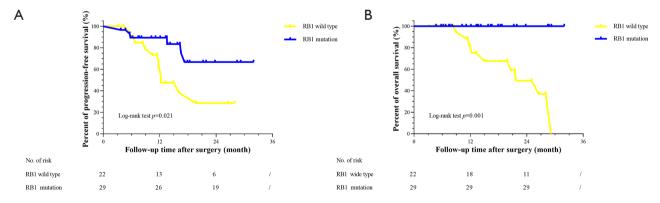
Table S1 The list of 68-gene panel

AKT1	BRCA1	DDR2	FGF4	JAK1	NF1	PTCH1	TOP2A
ALK	BRCA2	DPYD	FGFR1	JAK2	NOTCH1	PTEN	TP53
APC	CCND1	EGFR	FGFR2	KDR	NRAS	RAF1	TSC1
AR	CD74	ERBB2	FGFR3	KIT	NRG1	RB1	TSC2
ARAF	CDK4	ERBB3	FLT3	KRAS	NTRK1	RET	UGT1A1
ATM	CDK6	ERBB4	HRAS	MAP2K1	NTRK2	ROS1	
AXL	CDKN2A	ESR1	IDH1	MET	NTRK3	SMAD4	
BCL2L11	CTNNB1	FGF19	IDH2	MTOR	PDGFRA	SMO	
BRAF	CYP2D6	FGF3	IGF1R	MYC	PIK3CA	STK11	



**Figure S1** Survival outcomes of the primary cohort. (A) The Kaplan-Meier curve of PFS for the primary cohort; (B) the Kaplan-Meier curve of OS for the primary cohort. PFS, progression-free survival; OS, overall survival.



**Figure S2** Survival outcomes of the primary cohort stratified by RB1 status. (A) The Kaplan-Meier curve of PFS between the wild-type *RB1* and the *RB1* mutation; (B) the Kaplan-Meier curve of OS between the wild-type *RB1* and the *RB1* mutation. PFS, progression-free survival; OS, overall survival.