

## 产品概述

此实体瘤泛癌种Panel包含下列528个基因的全部编码区，30个常见实体瘤的融合基因热点内含子区域，99个微卫星不稳定检测位点，覆盖基因组约1.37Mb区域，支持包括碱基替换、插入、缺失检测分析。

## 528个基因：含全部外显子区域

ABL1	CBL	DUSP4	FH	IFNGR1	MDM4	PBRM1	RAD52	SPOP
ABRAXAS1	CCND1	E2F3	FLCN	IGF1	MED12	PDCD1	RAD54L	SPRED1
ACVR1	CCND2	EED	FLT1	IGF1R	MEF2B	PDCD1LG2	RAF1	SRC
ACVR1B	CCND3	EGFL7	FLT3	IGF2	MEN1	PDGFRA	RARA	SRSF2
AGO2	CCNE1	EGFR	FLT4	IKBKE	MERTK	PDGFRB	RASA1	STAG2
AKT1	CCNQ	EIF1AX	FOXA1	IKZF1	MET	PDK1	RB1	STAT3
AKT2	CD22	EIF4A2	FOXL2	IL10	MGA	PDPK1	RBM10	STAT5A
AKT3	CD274	EIF4E	FOXO1	IL7R	MITF	PGR	RECQL	STAT5B
ALK	CD276	ELF3	FOXP1	INHA	MKNK1	PHOX2B	RECQL4	STK11
ALOX12B	CD70	ELOC	FUBP1	INHBA	MLH1	PIK3C2B	REL	STK19
AMER1	CD79A	EMSY	FYN	INPP4A	MPL	PIK3C2G	RET	STK40
ANKRD11	CD79B	EP300	GABRA6	INPP4B	MRE11	PIK3C3	RHEB	SUFU
APC	CDC42	EPAS1	GATA1	INPL1	MSH2	PIK3CA	RHOA	SUZ12
AR	CDC73	EPCAM	GATA2	INSR	MSH3	PIK3CB	RICTOR	SYK
ARAF	CDH1	EPHA3	GATA3	IRF2	MSH6	PIK3CD	RIT1	TAP1
ARFRP1	CDK12	EPHA5	GATA4	IRF4	MST1R	PIK3CG	RNF43	TAP2
ARID1A	CDK4	EPHA7	GATA6	IRS1	MTAP	PIK3R1	ROS1	TBX3
ARID1B	CDK6	EPHB1	GID4	IRS2	MTOR	PIK3R2	RPS6KA4	TCF3
ARID2	CDK8	EPHB4	GLI1	JAK1	MUTYH	PIK3R3	RPS6KB2	TCF7L2
ARID5B	CDKN1A	ERBB2	GNA11	JAK2	MYC	PIM1	RPTOR	TEK
ASXL1	CDKN1B	ERBB3	GNA13	JAK3	MYCL	PLCG2	RRAGC	TERT
ASXL2	CDKN2A	ERBB4	GNAQ	JUN	MYCN	PLK2	RRAS	TET1
ATM	CDKN2B	ERCC1	GNAS	KDM5A	MYD88	PMAIP1	RRAS2	TET2
ATR	CDKN2C	ERCC2	GPS2	KDM5C	MYOD1	PMS1	RTEL1	TGFBR1
ATRX	CEBPA	ERCC3	GREM1	KDM6A	NBN	PMS2	RUNX1	TGFBR2
AURKA	CENPA	ERCC4	GRIN2A	KDR	NCOA3	PNRC1	RXRA	TIPARP
AURKB	CHD4	ERCC5	GRM3	KEAP1	NCOR1	POLD1	RYBP	TMEM127
AXIN1	CHEK1	ERF	GSK3B	KEL	NEGR1	POLE	SDHA	TMPRSS2
AXIN2	CHEK2	ERG	H3F3A	KIT	NF1	PPARG	SDHAF2	TNFAIP3
AXL	CIC	ERRFI1	H3F3B	KLF4	NF2	PPM1D	SDHB	TNFRSF14
B2M	COP1	ESR1	H3F3C	KLHL6	NFE2L2	PPP2R1A	SDHC	TOP1
BABAM1	CREBBP	ETV1	HDAC1	KMT2A	NFKBIA	PPP2R2A	SDHD	TP53
BAP1	CRKL	ETV6	HGF	KMT2B	NKX2-1	PPP4R2	SESN1	TP53BP1
BARD1	CRLF2	EZH1	HIST1H1C	KMT2C	NKX3-1	PPP6C	SESN2	TP63
BBC3	CSDE1	EZH2	HIST1H2BD	KMT2D	NOTCH1	PRDM1	SESN3	TRAF2
BCL10	CSF1R	EZR	HIST1H3A	KMT5A	NOTCH2	PRDM14	SETD2	TRAF7
BCL2	CSF3R	FAM46C	HIST1H3B	KNSTRN	NOTCH3	PREX2	SF3B1	TSC1
BCL2L1	CTCF	FANCA	HIST1H3C	KRAS	NOTCH4	PRKAR1A	SGK1	TSC2
BCL2L11	CTLA4	FANCC	HIST1H3D	LATS1	NPM1	PRKCI	SH2B3	TSHR
BCL2L2	CTNNA1	FANCD2	HIST1H3E	LATS2	NRAS	PRKD1	SH2D1A	TYRO3

BCL6	CTNNB1	FANCE	HIST1H3F	LMO1	NSD1	PRKN	SHOC2	U2AF1
BCOR	CUL3	FANCF	HIST1H3G	LRP1B	NSD2	PTCH1	SHQ1	UPF1
BCORL1	CUL4A	FANCG	HIST1H3H	LTK	NSD3	PTEN	SLX4	VEGFA
BIRC3	CXCR4	FANCL	HIST1H3I	LYN	NT5C2	PTP4A1	SMAD2	VHL
BLM	CYLD	FAS	HIST1H3J	MAF	NTHL1	PTPN11	SMAD3	VTCN1
BMPR1A	CYP17A1	FAT1	HIST2H3C	MALT1	NTRK1	PTPRD	SMAD4	WISP3
BRAF	CYSLTR2	FBXW7	HIST2H3D	MAP2K1	NTRK2	PTPRO	SMARCA4	WT1
BRCA1	DAXX	FGF10	HIST3H3	MAP2K2	NTRK3	PTPRS	SMARCB1	WWTR1
BRCA2	DCUN1D1	FGF12	HLA-A	MAP2K4	NUF2	PTPRT	SMARCD1	XIAP
BRD4	DDR1	FGF14	HLA-B	MAP3K1	NUP93	QKI	SMO	XPO1
BRIP1	DDR2	FGF19	HNF1A	MAP3K13	P2RY8	RAB35	SMYD3	XRCC2
BTG1	DICER1	FGF23	HOXB13	MAP3K14	PAK1	RAC1	SNCAIP	YAP1
BTG2	DIS3	FGF3	HRAS	MAPK1	PAK3	RAC2	SOCS1	YES1
BTK	DNAJB1	FGF4	HSD3B1	MAPK3	PAK5	RAD21	SOS1	ZFHX3
CALR	DNMT1	FGF6	HSP90AA1	MAPKAP1	PALB2	RAD50	SOX10	ZNF217
CARD11	DNMT3A	FGFR1	ICOSLG	MAX	PARP1	RAD51	SOX17	ZNF703
CARM1	DNMT3B	FGFR2	ID3	MCL1	PARP2	RAD51B	SOX2	
CASP8	DOT1L	FGFR3	IDH1	MDC1	PARP3	RAD51C	SOX9	
CBFB	DROSHA	FGFR4	IDH2	MDM2	PAX5	RAD51D	SPEN	

### 30个融合基因区域：部分内含子区域

基因	区域	基因	区域
ALK	intron: 17; 18; 19; 20; 21	KMT2A	intron: 6; 7; 8; 9; 10; 11
BCR	intron: 8; 13; 14	MET	intron: 14
BRAF	intron: 7; 8; 9; 10	MYC	intron: 1
BRCA1	intron: 2; 7; 8; 12; 16; 19; 20	NOTCH2	intron: 26
BRCA2	intron: 2	NTRK1	intron: 6; 7; 8; 9
CD74	UTR; intron: 6; 7; 8	NTRK2	intron: 12; 15
ETV4	intron: 5; 6	NUTM1	intron: 1
ETV5	intron: 6; 7	PDGFRA	intron: 7; 9; 11
ETV6	intron: 5; 6	RAF1	intron: 4; 5; 6; 7; 8; 9
EWSR1	intron: 6; 7; 8; 9; 10; 11; 12; 13	RARA	intron:
EZR	intron: 10; 11; 12	RET	intron: 6; 7; 8; 9; 10; 11
FGFR1	intron: 1; 5	ROS1	intron: 32; 33; 34; 35
FGFR2	intron: 1; 17	SDC4	intron: 2
FGFR3	intron: 14; 16; 17	SLC34A2	intron: 4
KIT	intron: 16	TMPRSS2	intron: 1; 2; 3

### 99个微卫星不稳定位点

BAT26	2B3D NCI Panel (CSCO指南); Promega Panel
BAT25	2B3D NCI Panel (CSCO指南); Promega Panel
D5S346	2B3D NCI Panel (CSCO指南)
D2S123	2B3D NCI Panel (CSCO指南)
D17S250	2B3D NCI Panel (CSCO指南)
NR21	Promega Panel
NR24	Promega Panel
NR27	Promega Panel
MONO27	Promega Panel
MSI: 10-99	额外已验证的89个微卫星位点