

GeneMind™ Core Pan-Cancer (130 genes) Solution

High sensitivity

Capable of detecting low-frequency variants as low as 0.2% in ctDNA

Sample compatibility

Supporting both tissue and liquid biopsy samples

Fusion detection

Adding *ROS1* fusion partners *CD74*, *SDC4*, *SLC34A2*, and *EZR* regions

Optimized pan-cancer panel

Suitable for lung cancer, colon cancer, prostate cancer, endometrial cancer, thyroid cancer

Comprehensive variant detection

Capable of detecting multiple types of variants such as SNVs, InDels, CNVs, SVs, etc

Contains classic MSI sites

BAT-25, *BAT-26*, *NR-21*, *NR-22*, *NR-24*, *NR-27*, *MONO-27*, *D2S123*, *D5S346*, and *D17S250*

Low-level cross-contamination

100+ unlinked SNP loci. Capable of detecting cross-individual human contamination at a minimum level of 1%

High accuracy

Combined with the backbone strategy, can detect CNVs as low as 3.0 copies



🕒 Product Introduction

GeneMind core pan-cancer panel is a targeted sequencing assay for biomarker analysis of over 130 genes with known relevance to solid tumors based on hybrid capture technology, covering all major variant classes plus microsatellite instability (MSI) and mismatch repair (MMR) related genes, which provide reference for targeted therapy, chemotherapy, immunotherapy and hereditary tumor risk assessment. Test results provide a comprehensive medication guidance for patients.

🕒 Targets List

Complete CDS Coverage

ALK1	ALK	APC	AR	ARID1A	ARID2	ATM	ATR	ATRX	B2M
BAP1	BARD1	BMPR1A	BRAF	BRCA1	BRCA2	BRIPQ	CBL	CCND1	CD274
CDH1	CDK12	CDK4	CDK6	CDKN2A	CDKN2B	CHEK1	CHEK2	CREBBP	CTNNB1
DDR2	EGFR	EIF1AX	EMSY	EPCAM	ERBB2	ESR1	FAM123B	FAM175A	FANCA
FANCL	FGF19	FGF3	FGF4	FGFR1	FGFR2	FGFR3	FH	FLCN	FLT3
FOXA1	FRG1B	GNA11	GNAQ	GREM1	HOXB13	HRAS	IDH1	IDH2	JAK1
JAK2	KDM5C	KDR	KEAP1	KIT	KRAS	MAP2K1	MDM2	MDM4	MET
MLH1	MRE11A	MSH2	MSH6	MTOR	MUTYH	MYC	NBN	NF1	NOTCH2
NRAS	NRG1	NTRK1	NTRK2	NTRK3	PALB2	PBRM1	PDCD1	PDGFRA	PDGFRB
PIK3CA	PMS1	PMS2	POLD1	POLE	PPP2R2A	PTCH1	PTEN	PAD50	RAD51B
RAD51C	RAD51D	RAD54L	RAF1	RB1	RET	ROS1	SDHA	SDHB	SDHC
SDHD	SETD2	SMAD4	SMARCA4	SOX2	SPOP	STK11	TCEB1	TERT	TFE3
TFEB	TP53	TSC1	TSC3	VEGFA	VHL				

Intron Coverage

ALK intron 19-20	BCL2L11 intron 2	CD74 intron 6-8	EZR intron 9-11	FGFR1 intron 1,3,4,6,7,10,14, 16,17	FGFR2 intron 16,17	FGFR3 intron 1,2,5,7,15,17	NTRK1 intron 8-13
NTRK2 intron 9,12	NTRK3 intron 11,12	RET intron 7-11	ROS1 intron 31-35	SDC4 intron 2	SLC34A2 intron 4	TMPRSS2 intron 1-3	

Fusion Targets

ALK	CD74	EZR	FGFR1	FGFR2	FGFR3	NRG1 *	NTRK1	NTRK	NTRK3
RET	ROS1	SDC4	SLC34A2	TMPRSS2					

* CD74 and SDC4 are common rearrangement partners for NRG1.

MSI Sites

BAT-25	BAT-26	CAT-25	D17S250	D17S261	D18S34	D18S35	D18S55	D2S123	D5S346
MONO-27	NR-21	NR-22	NR-24	NR-27					

Chemotherapy Targets

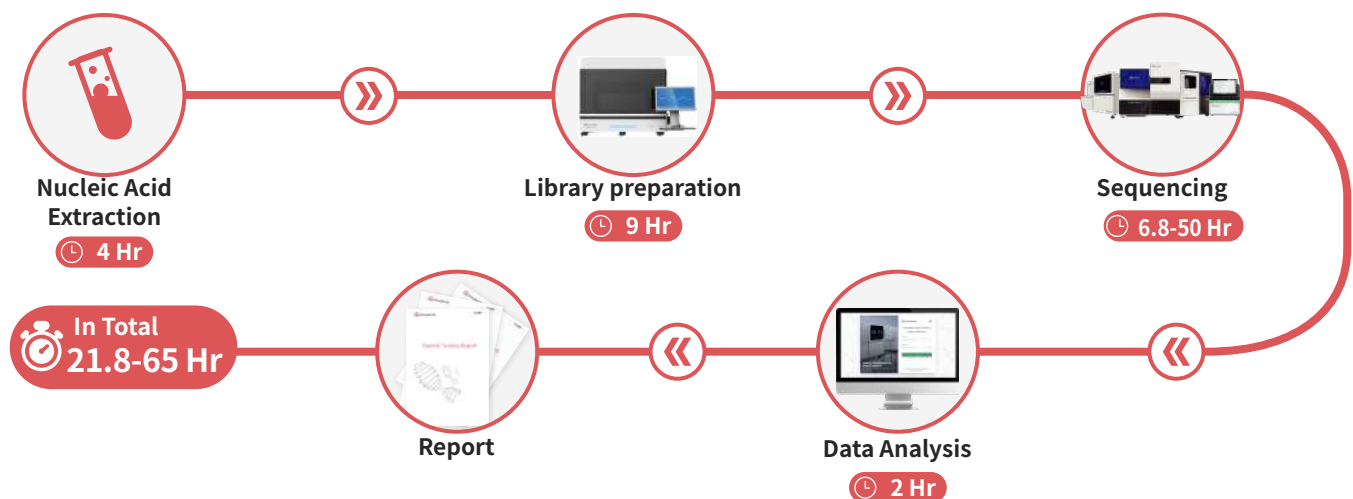
ABCB1	ACSS2	ATIC	C8orf34	CASP7	CBR3	CD3EAP	CDA	CMPK1	CSDE1
CYP19A1	CYP2C8	CYP2D6	DHFR	DPYD	DYNC2H1	ERCC1	ERCC2	FOLR3	GGH
GPX5	GPX7	GSTP1	MAP3K1	MSH3	MTHFR	MTRR	NQO1	NUDT15	PIK3CA
PRKCE	RAF1	RRM1	SEMA3C	SLC19A1	SLC28A1	SLC28A2	SLCO1B1	SOD2	TANC1
TEKT4	TP53	TPMT	TYMS	TYMSOS	UGT1A1	UGT1A8	UMPS	XPC	XRCC1

Specifications

Product		Core Pan-cancer 130 Panel			
Method		Hybrid capture			
Gene number		130+			
Panel size		700 kb			
Variants type		SNVs, InDels, Amplifications, Fusions, and MSIs			
Input quantity		20 ng - 500 ng DNA			
Sample types		FFPE, Fresh tissue, Plasma, White blood cell, Hydrothorax and ascite			
Mapping rate		98.99%			
On-target rate		>70%			
Coverage uniformity		96%			
Sequencing platform		FASTASeq™ S	FASTASeq™ 300	GenoLab™ M	SURFSeq™ 5000
Number of sample/FC	Tissue/White blood cell* (≥2 Gb PE150)	1 FCL: 2 1 FCM: 4	1 FCM: 12 1 FCH: 32 1 FCP: 56	1 FCM: 28 1 FCH: 56	1 FCM: 56 1 FCH: 224 1 FCP: 384
	Plasma (≥14 Gb PE150)	/	1 FCM: 2 1 FCH: 4 1 FCP: 8	1 FCM: 4 1 FCH: 8	1 FCM: 8 1 FCH: 32 1 FCP: 60
Report generation		Local analysis and report system			

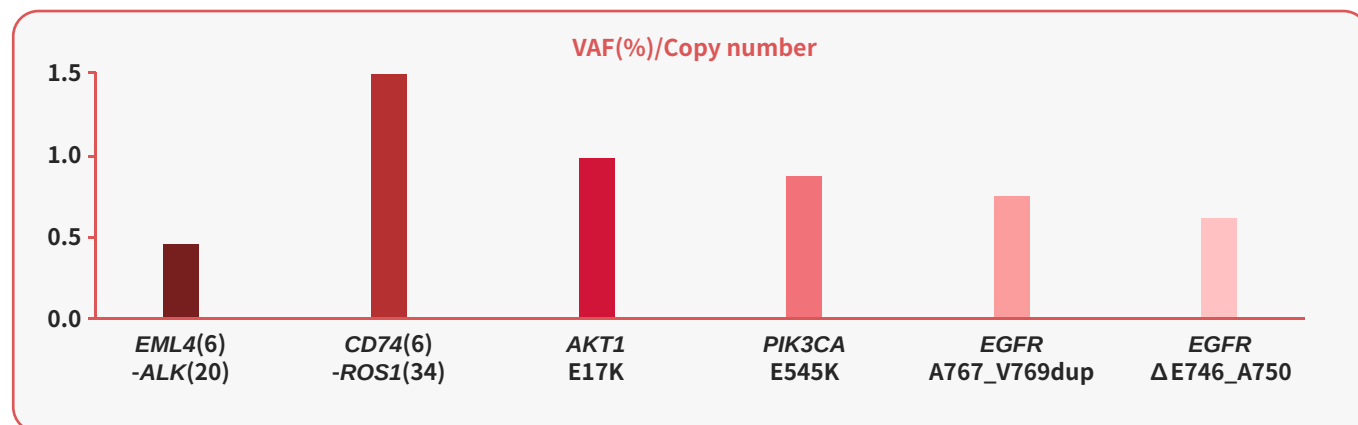
* White blood cells are recommended as a control to minimize interference from germline mutations.

GeneMind Oncology Solution Workflow



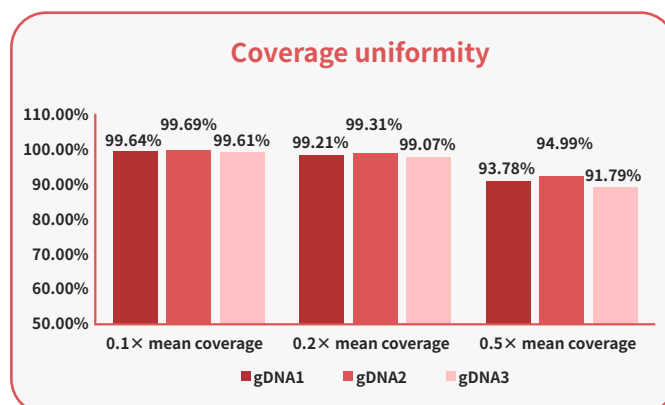
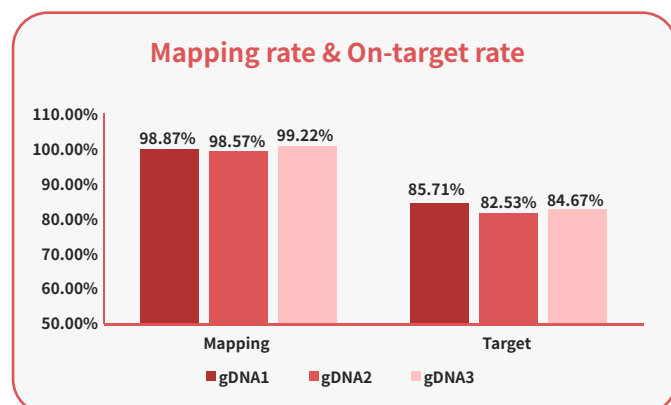
◎ Performance of Variants Detection*

SV		SNV		INDEL	CNV
<i>EML4</i> (6)- <i>ALK</i> (20)	<i>CD74</i> (6)- <i>ROS1</i> (34)	<i>AKT1</i> E17K	<i>PIK3CA</i> E545K	<i>EGFR</i> A767_V769 dup	<i>EGFR</i> ΔE746_A750
0.5%	0.5%	0.5%	4.60%	0.5%	0.5%
✓	✓	✓	✓	✓	✓



★ Using Cobioer Panel-Ref® gDNA Cocktail III Reference Standard (CBP90010).

◎ Performance of Panel**



★★ gDNA1 is SNV 5% gDNA standard II of Genewell (GW-OGTM006), gDNA2 is SV 5% gDNA standard of Genewell(GW-OGTM001), gDNA3 is SV 0.5% gDNA standard of Genewell(GW-OGTM001).

✂ Disclaimer

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