

Pan-solid tumor liquid biopsy

Powered by TruSight™ Oncology 500 ctDNA v2

TSO 500 ctDNA v2 assay is a comprehensive genomic profiling (CGP) assay providing clinically actionable biomarker results from a simple blood draw.

With a broad ctDNA sequencing panel covering 514-genes, TSO 500 ctDNA v2 enables biomarker discovery, trial enrollment and longitudinal monitoring — empowering biopharma partners to make data-driven decisions, even when tumor tissue is limited or unavailable.

514-gene panel covering all major variant classes from ctDNA sequencing

SNVs

InDels

CNVs

Fusions

bMSI

bTMB score



Results available within 7 days



Analysis and Report
Standard and custom options



Sample input

Whole blood: 2x10 mL Streck Cell-Free DNA BCT® tubes

Frozen plasma: Optimal volume 4 mL (minimum 2.5 mL)



TSO 500 ctDNA v2 validation performance data

Variant class	Limit of detection (LOD)*	Analytical sensitivity	Specificity	Accuracy
SNVs/InDels	0.23%	92.01%	99.80%	99.65%
Fusions	0.50%	100.0%	100.0%	100.0%
CNVs	1.20 fold	95.0%	99.86%	99.82%

LOD90 at 30ng input

Multimodal comprehensive menu: Complement your genomic data with our extensive portfolio of assays spanning IHC, ISH, FISH, Cytogenetics, Flow, and Spatial testing.

bTMB = blood tumor mutation burden; CNVs = copy number variants; ctDNA = circulating tumor DNA; IHC = immunohistochemistry; InDels = insertions/deletions; bMSI = blood microsatellite instability; SNVs = single-nucleotide variants.

Batch testing TAT based on sample size
Clinically annotated report available upon request

TSO 500 ctDNA v2

Assay Specifications

Parameter	Specification
Panel content	• SNVs and InDels – 514 genes • CNVs – 58 genes • Fusions – 23 genes • bMSI – over 2,300 loci • bTMB score – over 1 Mb
Laboratory	Aliso Viejo, US (CLIA-certified)
Validation level	LDT

TSO 500 ctDNA v2 gene list

SNVs and Indels												
ABL1	BCL2L2	CDKN2C	EIF4A2	FGF1	GNA13	IKBKE	MAP2K2	NEGR1	PIK3C3	RAD51	SLX4	TET2
ABL2	BCL6	CEBPA	EIF4E	FGF2	GNAQ	IKZF1	MAP2K4	NF1	PIK3CA	RAD51B	SMAD2	TFE3
ABRAXAS1	BCOR	CENPA	ELOC	FGF3	GNAS	IL10	MAP3K1	NF2	PIK3CB	RAD51C	SMAD3	TFRC
ACVR1	BCORL1	CHD2	EML4	FGF4	GPS2	IL7R	MAP3K4	NFE2L2	PIK3CD	RAD51D	SMAD4	TGFB1
ACVR1B	BCR	CHD4	EMSY	FGF5	GREM1	INHBA	MAP3K13	NFKBIA	PIK3CG	RAD52	SMARCA4	TGFB2
ADGRA2	BIRC3	CHEK1	EP300	FGF6	GRIN2A	INHBA	MAP3K14	NKX2-1	PIK3R1	RAD54L	SMARCB1	TMEM127
AKT1	BLM	CHEK2	EPCAM	FGF7	GRM3	INPP4A	MAPK1	NKX3-1	PIK3R2	RAF1	SMARCD1	TPRSS2
AKT2	BMPR1A	CIC	EPHA3	FGF8	GSK3B	INPP4B	MAPK3	NOTCH1	PIK3R3	RANBP2	SMC1A	TNFAIP3
AKT3	BRAF	COP1	EPHA5	FGF9	H1-2	INSR	MAX	NOTCH2	PIM1	RARA	SMC3	TNFRSF14
ALK	BRCA1	CREBBP	EPHA7	FGF10	H2BC5	IRF2	MCL1	NOTCH3	PLCG2	RASA1	SMO	TOP1
ALOX12B	BRCA2	CRKL	EPHB1	FGF14	H3-3A	IRF4	MDC1	NOTCH4	PLK2	RB1	SNCAIP	TOP2A
AMER1	BRD4	CRLF2	ERBB2	FGF19	H3-3B	IRS1	MDM2	NPM1	PMAIP1	RBM10	SOC1	TP53
ANKRD11	BRIP1	CSF1R	ERBB3	FGF23	H3-4	IRS2	MDM4	NRAS	PMS1	RECQL4	SOX10	TP63
ANKRD26	BTG1	CSF3R	ERBB4	FGFR1	H3-5	JAK1	MED12	NRG1	PMS2	REL	SOX17	TRAF2
APC	BTK	CSNK1A1	ERCC1	FGFR2	H3C1	JAK2	MEF2B	NSD1	PNRC1	RET	SOX2	TRAF7
AR	CALR	CTCF	ERCC2	FGFR3	H3C10	JAK3	MEN1	NTRK1	POLD1	RHEB	SOX9	TSC1
ARAF	CARD11	CTLA4	ERCC3	FGFR4	H3C11	JUN	MET	NTRK2	POLE	RHOA	SPEN	TSC2
ARFRP1	CASP8	CTNNA1	ERCC4	FH	H3C12	KAT6A	MGA	NTRK3	PPARG	RICTOR	SPOP	TSHR
ARID1A	CBFB	CTNNB1	ERCC5	FLCN	H3C13	KDM5A	MITF	NUP93	PPM1D	RIT1	SPTA1	U2AF1
ARID1B	CBL	CUL3	ERG	FLI1	H3C2	KDM5C	MLH1	NUTM1	PPP2R1A	RNF43	SRC	VEGFA
ARID2	CCN6	CUX1	ERF1	FLT1	H3C3	KDM6A	MLL2	PAK1	PPP2R2A	ROS1	SRSF2	VHL
ARID5B	CCND1	CXCR4	ESR1	FLT3	H3C4	KDR	MPL	PAK3	PPP6C	RPS6KA4	STAG1	VTCN1
ASXL1	CCND2	CYLD	ETS1	FLT4	H3C6	KEAP1	MRE11	PAK5	PRDM1	RPS6KB1	STAG2	WT1
ASXL2	CCND3	DAXX	ETV1	FOXA1	H3C7	KEL	MSH2	PALB2	PREX2	RPS6KB2	STAT3	XIAP
ATM	CCNE1	DCUN1D1	ETV4	FOXL2	H3C8	KIF5B	MSH3	PARP1	PRKAR1A	RPTOR	STAT4	XPO1
ATR	CD274	DDR2	ETV5	FOXO1	HGF	KIT	MSH6	PAX3	PRKCI	RUNX1	STAT5A	XRCC2
ATRX	CD276	DDX41	ETV6	FOXP1	HNF1A	KLF4	MST1	PAX5	PRKDC	RUNX1T1	STAT5B	YAP1
AURKA	CD74	DHX15	EWSR1	FRS2	HNRNP	KLHL6	MST1R	PAX7	PRKN	RYBP	STK11	YES1
AURKB	CD79A	DICER1	EZH2	FUBP1	HOXB13	KMT2A	MTOR	PAX8	PRSS8	SDHA	STK40	ZBTB2
AXIN1	CD79B	DIS3	FANCA	FYN	HRAS	KRAS	MUTYH	PBRM1	PTCH1	SDHAF2	SUFU	ZBTB7A
AXIN2	CDC73	DNAJB1	FANCC	GABRA6	HSD3B1	LAMP1	MYB	PDCD1	PTEN	SDHB	SUZ12	ZFH3
AXL	CDH1	DNMT1	FANCD2	GATA1	HSP90AA1	LATS1	MYC	PDCD1LG2	PTPN11	SDHC	SYK	ZNF217
B2M	CDK12	DNMT3A	FANCE	GATA2	ICOSLG	LATS2	MYCL	PDGFRA	PTPRD	SDHD	TAF1	ZNF703
BAP1	CDK4	DNMT3B	FANCF	GATA3	ID3	LMO1	MYCN	PDGFRB	PTPRS	SETBP1	TBX3	ZRSR2
BARD1	CDK6	DOT1L	FANCG	GATA4	IDH1	LRP1B	MYD88	PDK1	PTPRT	SETD2	TCF3	
BBC3	CDK8	E2F3	FANCI	GATA6	IDH2	LYN	MYO1D	PGR	QKI	SF3B1	TCF7L2	
BCL10	CDKN1A	EED	FANCL	GEN1	IFNGR1	LZTR1	NAB2	PHF6	RAB35	SH2B3	TENT5C	
BCL2	CDKN1B	EGFL7	FAS	GID4	IGF1	MAGI2	NBN	PHOX2B	RAC1	SH2D1A	TERC	
BCL2L1	CDKN2A	EGFR	FAT1	GLI1	IGF1R	MALT1	NCOA3	PIK3C2B	RAD21	SHQ1	TERT	
BCL2L11	CDKN2B	EIF1AX	FBXW7	GNA11	IGF2	MAP2K1	NCOR1	PIK3C2G	RAD50	SLIT2	TET1	

CNVs												
AKT2	BRCA1	CDK4	ERBB2	FGF1	FGF6	FGF14	FGFR3	LAMP1	MYCN	PIK3CA	RICTOR	
ALK	BRCA2	CDK6	ERBB3	FGF2	FGF7	FGF19	FGFR4	MDM2	NRAS	PIK3CB	RPS6KB1	
AR	CCND1	CHEK1	ERCC1	FGF3	FGF8	FGF23	JAK2	MDM4	NRG1	PTEN	TFRC	
ATM	CCND3	CHEK2	ERCC2	FGF4	FGF9	FGFR1	KIT	MET	PDGFRA	RAF1		
BRAF	CCNE1	EGFR	ESR1	FGF5	FGF10	FGFR2	KRAS	MYCL	PDGFRB	RET		

Fusions												
ABL1	BCR	CD74	ETV1	ETV6	FGFR2	NAB2	NTRK2	PAX3	PPARG	ROS1	TPRSS2	
ALK	BRAF	EGFR	ETV4	EWSR1	FGFR3	NTRK1	NUTM1	PAX8	RET	TFE3		

Additional Biomarkers												
bMSI bTMB score												

NeoGenomics, Inc. is a premier cancer diagnostics company specializing in cancer genetics testing and oncology data solutions. We offer one of the most comprehensive oncology-focused testing menus across the cancer continuum, serving oncologists, pathologists, hospital systems, academic centers, and pharmaceutical firms with innovative diagnostic and predictive testing to help them diagnose and treat cancer. Headquartered in Fort Myers, FL, NeoGenomics operates a network of CAP-accredited and CLIA-certified laboratories for full-service sample processing and analysis services throughout the US and a CAP-accredited full-service, sample-processing laboratory in Cambridge, England, United Kingdom.