

# About Guardant360 Liquid

A comprehensive liquid profiling test that evaluates 744 genes and includes TMB, MSI status, and ever-expanding epigenomic features.

## Test specifications

Sample input	Sample specifications	Turnaround time
Two 10 mL tubes of whole blood	Ship same or next day at room temperature - do not freeze or refrigerate	7 days from sample receipt to results*

## Performance specifications

	Limit of Detection at 95% Sensitivity <sup>†</sup>	Specificity	Threshold for Positivity <sup>‡</sup>	
Alterations	SNVs	0.20%	≥99.9%	≥0.001%
	Indels	0.26%	≥99.9%	≥0.01%
	CNAs	2.46 copies	≥99.9%	≥2.13 copies
	CNLs	20%	≥99.9%	—
	Fusions/Rearrangements	0.15%	≥99.9%	≥2 unique molecules
	MSI-High	0.05%	≥99.9%	>19 unstable MS sites
	Tumor Fraction	0.05%	—	—
	TMB	—	—	≥0.3% <sup>§</sup>
	Promoter Methylation	1.6%	≥99.9%	≥5 molecules

\*Median turnaround time from sample receipt to results.

<sup>†</sup>Limit of detection (LoD) defined as the allele fraction/copy number at which the test has a 95% probability of detection for oncogenic variants and genes with relevance in guidelines, drug labels, and clinical trials.

<sup>‡</sup>Indicates mutant allele fraction for detected SNVs and Indels.

<sup>§</sup>Tumor mutation burden (TMB) evaluable at or above a sample allele fraction of 0.3%.

CHIP: Clonal Hematopoiesis of Indeterminate Potential; CNA: Copy Number Amplification; CNL: Copy Number Loss;

MS: Microsatellite; MSI: Microsatellite Instability; SNV: Single Nucleotide Variant.

**Important Note:** Guardant360 Liquid was developed as a Laboratory Developed Test (LDT), and its performance characteristics determined, by the Guardant Health Clinical Laboratory in Redwood City, CA, USA, which is certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA) as qualified to perform high-complexity testing. This test has not been cleared or approved by the US FDA.

Product availability may vary depending on country / region. Guardant360 liquid is neither not approved nor marketed in EU.

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MSI status - Qualitative result

TMB - Mutations per megabase

CHIP - Potential variants noted

Tumor fraction - Percent

Virus - EBV, HPV

## Gene Panel

ABCB1	BTK	CYP17A1	ERG	FZD7	IRS2	MRE11	PDGFRB	RAD51D <sup>††††</sup>	SMARCE1	TRIP13
ABL1	BUB1B	CYP19A1	ERF1	FZD8	JAK1	MSH2 <sup>††</sup>	PDK1	RAD52	SMC1A	TSC1
ABL2	C9orf78	CYP2C19	ESR1 <sup>##</sup>	FZD9	JAK2	MSH3	PDPK1	RAD54L	SMC3	TSC2 <sup>††</sup>
ABRAXAS1	CALR	CYP2D6 <sup>†††</sup>	ETS1	GAS6	JAK3	MSH6 <sup>††</sup>	PHF6	RAET1E	SMO	TSHR
ACVR1	CARD11	CYP3A4	ETV1	GATA1	JUN	MTAP <sup>††††</sup>	PHLPP1	RAF1 <sup>#</sup>	SNCAIP	TSH2
ACVR1B	CASP8	DAXX	ETV4	GATA2	KAT6A	MTHFR	PHLPP2	RARA	SOCS1	TYMP
ACVR2A	CASR	DCUN1D1	ETV5	GATA3	KAT6B	MTOR	PHOX2B	RASA1	SOCS3	TYMS
ADARB2	CAV1	DDIT3	ETV6	GATA4	KDM4A	MUTYH <sup>††</sup>	PIAS4	RB1 <sup>††††</sup>	SOS1	TYRO3
ADGRA2	CBFB	DDR1	EWSR1	GATA6	KDM5A	MYB	PIK3C2B	RBBP6	SOX10	U2AF1
ADGRG4	CBL	DDR2	EXO1	GEN1	KDM5B	MYC <sup>#</sup>	PIK3CA <sup>#</sup>	RBM10	SOX17	UBE2T
AFDN	CBLB	DDX17	EZH1	GID4	KDM5C	MYCL	PIK3CB	RBMX	SOX2	UGT1A1 <sup>†††</sup>
AGGF1	CCAR1	DDX18	EZH2	GLI1	KDM6A	MYCN	PIK3CD	RECQL	SOX9	UIMC1
AIP	CCN6	DDX27	FAAP100	GNA11	KDR	MYD88	PIK3CG	RECQL4	SPEN	ULBP1
AKT1	CCNA2	DDX3X	FAAP20	GNA13	KEAP1 <sup>††††</sup>	MYO1	PIK3R1	RET <sup>†</sup>	SPOP	ULBP3
AKT1S1	CCNB1	DDX41	FAAP24	GNAQ	KIN	NAB2	PIK3R2	REV3L	SRC	USP28
AKT2	CCND1 <sup>#</sup>	DEPDC5	FANCA <sup>††</sup>	GNAS	KIT <sup>#</sup>	NBN	PIK3R3	RGS1	SRSF2	USP7
AKT3	CCND2 <sup>#</sup>	DEPTOR	FANCB	GNAT4	KIF4	NCOR1	PIM1	RHEB	SRY	USP9X
ALB	CCND3	DHX15	FANCC	GPC3	KLHL6	NCR1	PIN1	RHOA	SS18	VEGFA
ALK <sup>†</sup>	CCNE1 <sup>#</sup>	DHX16	FANCD2	GREM1	KLHL9	NCR3	PKM	RHOB	STAG2	VEGFB
ALOX12B	CCNE2	DHX36	FANCE <sup>††</sup>	GRIN2A	KLHL9	NEGR1	PLCG2	RICTOR	STAT1	VHL
ALOX15B	CD274	DHX9	FANCF <sup>††</sup>	GSK3B	KMT2B	NELFE	PLEKHS1	RIF1	STAT3	VIRMA
ALOX5	CD276	DICER1	FANCG <sup>††</sup>	GSTM1	KMT2C	NF1 <sup>††</sup>	PLRG1	RILPL1	STAT4	WBP11
AMER1	CD74	DIS3L2	FANCI	GSTP1	KMT2D	NF2 <sup>††</sup>	PMS1	RIT1	STK11 <sup>††††</sup>	WEE1
APC <sup>††</sup>	CD79A	DLL4	FANCL <sup>††</sup>	H3-4	KNSTRN	NFE2L2	PMS2 <sup>††</sup>	RNASEH2B	STK19	WRN
APEX1	CD79B	DNAJB1	FANCM	H3F3A	KRAS <sup>#</sup>	NFKBIA	POLA1	RNF43	STK40	WT1
APLNLR	CDC27	DNMT1	FAS	HACD4	LATS1	NHEJ1	POLD1	ROBO1	STN1	WWP1
AR <sup>#</sup>	CDC5L	DNMT3A	FAT1	HDAC2	LGR4	NKX2-1	POLE <sup>††</sup>	ROBO2	SUFU	XBP1
ARAF	CDC7	DNMT3B	FBXW7	HDAC6	LGR5	NOTCH1	POLH	ROS1 <sup>†</sup>	SYK	XPA
ARFRP1	CDC73	DOT1L	FCGR2A	HDAC7	LGR6	NOTCH2	POLQ	RPA1	SYNCRIP	XPC
ARHGAP35	CDH1 <sup>††</sup>	DPYD <sup>†††</sup>	FCGR3A	HES1	LIG1	NOTCH3	POT1	RPS27A	TACSTD2 (TROP2)	XPO1
ARID1A <sup>††</sup>	CDH6	DUSP4	FEN1	HEY1	LIG4	NOTCH4	POU2F2	RPS6KA3	TAF1L	XRCC1
ARID1B <sup>††</sup>	CDK11A	DYNLL1	FGF1	HEYL	LMO1	NOVA1	PPARG	RPS6KB1	TAP1	XRCC2
ARID2	CDK12 <sup>††††</sup>	DYRK2	FGF10	HGF	LRP1B	NPM1	PIIG	RPS6KB2	TAP2	XRCC3
ASXL1	CDK4 <sup>#</sup>	E2F3	FGF12	HLA-A <sup>§§</sup>	LRP2	NPRL2	PPM1D	RPTOR	TAPBP	XRCC4
ATM <sup>††††</sup>	CDK6 <sup>#</sup>	EBV <sup>##</sup>	FGF14	HLA-B <sup>§§†††</sup>	LRP5	NPRL3	PPP2CA	RRAGC	TBC1D7	XRCC5
ATMIN	CDK7	ECT2L	FGF19	HLA-C <sup>§§</sup>	LRP6	NRAS	PPP2R1A	RSPO1	TBX3	XRCC6
ATR <sup>††</sup>	CDK8	EFTUD2	FGF2	HNF1A	LTK	NRG1 <sup>†</sup>	PPP2R2A	RSPO2	TCERG1	YAP1
ATRX	CDKN1A	EGFR <sup>##</sup>	FGF23	HNRNPDL	LYN	NSD1	PPP3CA	RSPO4	TCF7L2	YES1
AURKA	CDKN1B <sup>††</sup>	EIF1AX	FGF3	HOXB13	LZTR1	NSD2	PPP6C	RUNX1	TEK	ZC3H13
AURKB	CDKN1C	EIF4A1	FGF4	HPV <sup>##†††</sup>	MAD2L2	NSD3	PRDM1	RUNX1T1	TEN1	ZC3H18
AURKC	CDKN2A1 <sup>††††</sup>	EIF4A2	FGF5	HRAS	MALT1	NSRP1	PREX1	RXRA	TENT5C	ZC3H4
AXIN1	CDKN2B	EIF4A3	FGF6	HSD3B1	MAP2K1	NTHL1	PREX2	RYBP	TERT <sup>††</sup>	ZMYM3
AXIN2	CDKN2C	EIF4B	FGF7	HSP90AA1	MAP2K2	NTRK1 <sup>†</sup>	SAMHD1	SAMHD1	TET1	ZNF217
AXL	CEBPA	EIF4E	FGF8	ICOSLG	MAP2K4	NTRK2 <sup>†</sup>	PRK1	SDC4	TET2	ZNF703
B2M <sup>††</sup>	CELF4	EIF4E2	FGF9	ID3	MAP3K1	NTRK3 <sup>†</sup>	PRKDC	SDHA <sup>††</sup>	TFE3	ZNRF3
BABAM1	CEP295	ELAVL1	FGFR1 <sup>##</sup>	IDH1	MAP3K13	NUMA1	PRKN	SDHAF2	TFRC	ZRSR2
BABAM2	CFAP20	ELAVL2	FGFR2 <sup>##</sup>	IDH2	MAP4K3	NUMB	PRMT5	SDHB <sup>††</sup>	TGFBRL2	
BAP1	CHD4	ELF3	FGFR3 <sup>†</sup>	IDO1	MAPK1	NUP93	PRPF40B	SDHC <sup>††</sup>	TGFBRL2	
BARD1	CHEK1 <sup>††</sup>	ELOC	FGFR4	IFNG	MAPK3	NUTM1	PRPF4B	SDHD <sup>††</sup>	THRAP3	
BCL2	CHEK2 <sup>††††</sup>	EML4	FH	IFNGR1	MAPKAP1	P2RY8	PSENNEN	SEM1	TIA1	
BCL2L1	CIC	EMSY	FLCN	IFNGR2	MARK2	PABPC1	PSMB10	SERPINB3	TIPARP	
BCL2L2	CMTM4	EP300	FLT1	IFNGR1	MAX	PAK1	PSMB8	SERPINB4	TMEM127	
BCL6	CMTM6	EPCAM	FLT3	IGF1	MCL1	PAK3	PSMB9	SESN2	TMPRSS2	
BCOR	CNOT3	EPHA3	FLT4	IGF1R	MDC1	PALB2 <sup>††††</sup>	PTCH1	SETD2	TNFAIP3	
BCORL1	CREBBP	EPHA5	FOXA1	IGF2	MDM2	PARG	PTDSS1	SF3B1	TNFRSF14	
BCR	CRKL	EPHA7	FOXO1	IGF2BP3	MDM4	PARP1	PTEN <sup>††††</sup>	SF3B3	TNFRSF1A	
BIRC5	CTRC1	ERBB1	FOXO2	IGF2R	MED12	PARP2	PTPN11	SH2D1A	TNK2	
BLM	CSF1R	ERBB2 <sup>#</sup> (HER2)	FOXP1	IKBKE	MEF2B	PAX3	PTPN2	SHLD1	TNPO1	
BMPR1A	CSF3R	ERBB3	FRS2	IKZF1	MEN1	PAX5	PTPRD	SHLD2	TOP1	
BRAF <sup>##</sup>	CTC1	ERBB4	FUBP1	IL1R1	MERTK	PAX7	PTPRS	SLC34A2	TOP2A	
BRCA1 <sup>††††</sup>	CTCF	ERCC1	FUBP3	IL2RA	MET <sup>††</sup>	PAX8	PTPRT	SLFN11	TOPAZ1	
BRCA2 <sup>††††</sup>	CTLA4	ERCC2	FUS	IL2RB	MGA	PAXIP1	QKI	SLIT2	TP53 <sup>††</sup>	
BRCC3	CTNNA1	ERCC3	FYN	IL2RG	MGMT <sup>††</sup>	PBRM1 <sup>††</sup>	RAB35	SMAD2	TP53BP1	
BRD2	CTNNA1	ERCC4	FZD1	IL7R	MITF	PCBP1	RAC1	SMAD3	TP63	
BRD3	CUL3	ERCC5	FZD10	INHBA	MKNK1	PCBP2	RAD18	SMAD4 <sup>††</sup>	TP73	
BRD4	CUL4A	ERCC6	FZD2	INPP4B	MLH1 <sup>††</sup>	PCDH15	RAD21	SMARCA2	TPMT <sup>†††</sup>	
BRIP1 <sup>††</sup>	CUX1	ERCC6L2	FZD3	INTS6L	MLH3	PDCD1	RAD50 <sup>††</sup>	SMARCA4	TRAF2	
BSG	CWC22	ERCC8	FZD4	IRF1	MLST8	PDCD1LG2	RAD51 <sup>††</sup>	SMARCA1	TRAF3	
BTG1	CXCR4	EREG	FZD5	IRF2	MPL	PDE7A	RAD51B	SMARCB1	TRAF7	
BTG2	CYLD	ERF	FZD6	IRF4	MRAS	PDGFRA <sup>#</sup>	RAD51C <sup>††††</sup>	SMARCD1	TRIM24	

<sup>†</sup>Includes TERT promoter region. <sup>##</sup>Includes CNAs. <sup>††</sup>Includes Fusions/Rearrangements. <sup>†††</sup>Includes Copy Number Losses. <sup>††††</sup>Includes Promoter Methylation. <sup>†††††</sup>Promoter Methylation only. <sup>§§</sup>HLA alleles. <sup>†††††</sup>Pharmacogenomic results. <sup>##</sup>Virus. <sup>†††††</sup>High-risk.

CHIP filter is based on a proprietary algorithm that identifies variants that are potentially derived from clonal hematopoiesis.