

ForeSENTIA GENES AND GENETIC ALTERATIONS TESTED PER PANEL

GENES TESTED

The following table indicates the genes tested per panel.

PAN-CANCER PLUS	ABL1, ABL2, AKT1, AKT2, ALK, ANKRD26, APC, AR, ARAF, ASXL1, ATM, ATRX, B2M, BAP1, BARD1, BCL2,
222 genes	BCL6, BCOR, BCORL1, BCR, BMPR1A, BRAF, BRCA1, BRCA2, BRIP1, CALR, CBFB, CBL, CBLB, CBLC, CCND1,
	CCND2, CCND3, CCNE1, CD274, CD74, CDC25C, CDH1, CDK12, CDK4, CDK6, CDKN2A, CEBPA, CHEK2,
	CIC, CSF1R, CSF3R, CTLA4, CTNNB1, CUX1, CXCR4, DCK, DDR2, DDX41, DEK, DHX15, DICER1, DNMT3A,
	DUSP22, EGFR, EIF1AX, EPCAM, ERBB2, ERBB3, ERBB4, ERCC4, ERG, ESR1, ETNK1, ETV1, ETV4, ETV6,
	EWSR1, EZH2, FANCA, FBXW7, FGF13, FGF19, FGF2, FGF3, FGFR1, FGFR2, FGFR3, FGFR4, FLT1, FLT3, FLT4,
	FOXA1, FOXL2, FOXO1, FRS2, FUBP1, GATA1, GATA2, GATA3, GNA11, GNAQ, GNAS, H3F3A, HDAC2,
	HOXB13, HRAS, IDH1, IDH2, IKZF1, IL3, INHA, INSRR, IRF4, JAK1, JAK2, JAK3, KDM6A, KDR, KEAP1, KIT,
	KMT2A, KMT2C, KMT2D, KRAS, LUC7L2, MALT1, MAP2K1,MAP2K2, MAP3K1, MDM2, MECOM, MET,
	MITF, MLH1, MLLT3, MPL, MRE11, MSH2, MSH6, MTOR, MUTYH, MYC, MYCN, MYD88, MYH11, MYOD1,
	NBN, NCOA3, NF1, NF2, NFE2L2, NOTCH1, NPM1, NRAS, NRG1, NTRK1, NTRK2, NTRK3, NUP214, NUTM1,
	PALB2, PARP1, PBX1, PDCD1, PDCD1LG2, PDGFRA, PDGFRB, PGR, PHF6, PIK3CA, PIK3CB, PIK3R1, PML,
	PMS2, POLD1, POLE, PPM1D, PPP2R1A, PTCH1, PTEN, PTPN11, RAD21, RAD51C, RAD51D, RAF1, RARA,
	RB1, RBBP6, RET, RNF43, ROS1, RPS14, RUNX1, RUNX1T1, SETBP1, SF3B1, SH2B3, SLC29A1, SMAD4,
	SMARCA4, SMARCB1, SMC1A, SMC3, SMO, SOX10, SPOP, SRSF2, STAG2, STAT3, STAT5B, STK11, SUZ12, TCF3,
	TCL1A, TERT, TET2, TMPRSS2, TP53, TSC1, TSC2, U2AF1, VEGFA, VHL, WT1, XPO1, ZRSR2, 1p/19q codeletion

GENETIC ALTERATIONS TESTED

The following table shows the types of genetic alterations and coding exon coverage for each gene.

ABL1 Full coding exonic coverage	ABL2 Full coding exonic coverage	AKT1 Full coding exonic coverage	AKT2 Full coding exonic coverage	ALK Full coding exonic coverage	ANKRD26 Full coding exonic coverage
(NM_005157.6)	(NM_007314.4)	(NM_001382430.1)	(NM_001626.6)	(NM_004304.5)	(NM_014915.3)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
APC Full coding exonic coverage (NM_000038.6)	AR Full coding exonic coverage (NM_000044.6)	ARAF Full coding exonic coverage (NM_001654.5)	ASXL1 Exons 1-2, 4-13 (NM_015338.6)	ATM Full coding exonic coverage (NM_000051.4)	ATRX Full coding exonic coverage (NM_000489.6)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered		Selected non-coding regions covered	
B2M Full coding exonic coverage (NM_004048.4)	BAP1 Full coding exonic coverage (NM_004656.4)	BARD1 Full coding exonic coverage (NM_000465.4)	BCL2 Full coding exonic coverage (NM_000633.3)	BCL6 Full coding exonic coverage (NM_001706.5)	BCOR Full coding exonic coverage (NM_001123385:2)
	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	
BCORL1 Exons 2-8, 10-14 (NM_001379451.1)	BCR Exons 1-16, 21-23 (NM_004327.4)	BMPR1A Exons 4, 5, 7, 8, 11 (NM_004329.2)	BRAF Exons 1-13, 15, 16, 18 (NM_004333.6) Exons 1-14, 16, 17, 19 (NM_001374258.1)	BRCA1 Full coding exonic coverage (NM_007294.4)	BRCA2 Full coding exonic coverage (NM_000059.4)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
BRIP1 Full coding exonic coverage (NM_032043.3)	CALR Full coding exonic coverage (NM_004343.4)	CBFB Exons 2-6 (NM_022845.3)	CBL Exons 1, 2, 4-16 (NM_005188.4)	CBLB Full coding exonic coverage (NM_170662.5)	CBLC Full coding exonic coverage (NM_012116.4)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	A	
CCND1 Full coding exonic coverage (NM 053056.3)	CCND2 Full coding exonic coverage (NM 001759.4)	CCND3 Full coding exonic coverage (NM_001760.5)	CCNE1 Full coding exonic coverage (NM_001238.4)	CD274 Full coding exonic coverage (NM_014143.4)	CD74 Full coding exonic coverage (NM_001025159.3)
(NM_053056.3)					

Selected non-coding regions which are covered by the test are indicated above.

CDC25C	CDH1	CDK12	CDK4	CDK6	CDKN2A
Full coding exonic coverage (NM_001790.5)	Full coding exonic coverage (NM_004360.5)	Full coding exonic coverage (NM_016507.4)	Full coding exonic coverage (NM_000075.4)	Full coding exonic coverage (NM_001145306.2)	Full coding exonic coverage (NM_000077.5) (NM_058195.4)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
CEBPA Full coding exonic coverage (NM_004364.5)	CHEK2 Exons 2-13 (NM_007194.4)	CIC Full coding exonic coverage (NM_001386298.1)	CSF1R Full coding exonic coverage (NM_001288705.3)	CSF3R Full coding exonic coverage (NM_000760.4)	CTLA4 Full coding exonic coverage (NM_005214.5)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered		Selected non-coding regions covered	Selected non-coding regions covered
CTNNB1 Exons 3-15 (NM_001904.4)	CUX1 Full coding exonic coverage (NM_181552.4) Exons 1-18, 20-23 (NM_001913.5)	CXCR4 Full coding exonic coverage (NM_003467.3)	DCK Full coding exonic coverage (NM_000788.3)	DDR2 Full coding exonic coverage (NM_006182.4)	DDX41 Full coding exonic coverage (NM_016222.4)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered		Selected non-coding regions covered	Selected non-coding regions covered
DEK Full coding exonic coverage (NM_003472.4)	DHX15 Full coding exonic coverage (NM_001358.3)	DICER1 Exons 2-26 (NM_177438.3)	DNMT3A Full coding exonic coverage (NM_022552.5)	DUSP22 Full coding exonic coverage (NM_001286555.3)	EGFR Exons 1-15, 17-24, 27, 28 (NM_005228.5)
Selected non-coding regions covered	Selected non-coding regions covered			Selected non-coding regions covered	
EIF1AX Exons 2, 4, 5 (NM_001412.4)	EPCAM Full coding exonic coverage (NM_002354.3)	ERBB2 Exons 1-15, 19-24 (NM_004448.4)	ERBB3 Full coding exonic coverage (NM_001982.4)	ERBB4 Full coding exonic coverage (NM_005235.3)	ERCC4 Full coding exonic coverage (NM_005236.3)
	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	▲
ERG Full coding exonic coverage (NM_182918.4)	ESR1 Full coding exonic coverage (NM_000125.4)	ETNK1 Full coding exonic coverage (NM_018638.5)	ETV1 Full coding exonic coverage (NM_004956.5)	ETV4 Full coding exonic coverage (NM_001079675.5)	ETV6 Full coding exonic coverage (NM_001987.5)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
EWSR1 Exons 1-3, 6-10, 12-17 (NM_005243.4)	EZH2 Exons 2-4, 6-20 (NM_004456.5)	FANCA Exons 1, 2, 4-14, 16-43 (NM_000135.4)	FBXW7 Full coding exonic coverage (NM_001349798.2)	FGF13 Exons 1, 3-5 (NM_004114.5)	FGF19 Full coding exonic coverage (NM_005117.3)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	▲
FGF2 Full coding exonic coverage (NM_001361665.2)	FGF3 Full coding exonic coverage (NM_005247.4)	FGFR1 Exons 2, 5-9, 12-18 (NM_023110.3)	FGFR2 Exons 2-9, 11, 13-17 (NM_000141.5)	FGFR3 Full coding exonic coverage (NM_000142.5)	FGFR4 Full coding exonic coverage (NM_213647.3)
	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
FLT1 Full coding exonic coverage (NM_002019.4)	FLT3 Exons 1-15, 17-24 (NM_004119.3)	FLT4 Exons 2-19, 21-30 (NM_182925.5)	FOXA1 Full coding exonic coverage (NM_004496.5)	FOXL2 Full coding exonic coverage (NM_023067.4)	FOXO1 Full coding exonic coverage (NM_002015.4)
Selected non-coding regions covered	Selected non-coding regions covered		Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
FRS2 Exons 5-9 (NM_001278356.2)	FUBP1 Exons 1-19 (NM_003902.5)	GATA1 Full coding exonic coverage (NM_002049.4)	GATA2 Full coding exonic coverage (NM_032638.5)	GATA3 Full coding exonic coverage (NM_001002295.2)	GNA11 Exons 2-7 (NM_002067.5)
	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
GNAQ Full coding exonic coverage (NM_002072.5)	GNAS Full coding exonic coverage (NM_000516.7)	H3F3A Full coding exonic coverage (NM_002107.7)	HDAC2 Full coding exonic coverage (NM_001527.4)	HOXB13 Full coding exonic coverage (NM_006361.6)	HRAS Full coding exonic coverage (NM_005343.4) (NM_176795.5)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered

Selected non-coding regions which are covered by the test are indicated above.

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IDH1 Full coding exonic coverage	IDH2 Exons 2-11	IKZF1 Full coding exonic coverage	IL3 Full coding exonic coverage	INHA Full coding exonic coverage	INSRR Exons 1-6, 8-22
(NM_005896.4)	(NM_002168.4)	(NM_006060.6)	(NM_000588.4)	(NM_002191.4)	(NM_014215.3)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
IRF4 Full coding exonic coverage (NM_002460.4)	JAK1 Full coding exonic coverage (NM_002227.4)	JAK2 Full coding exonic coverage (NM_004972.4)	JAK3 Full coding exonic coverage (NM_000215.4)	KDM6A Exons 1-13, 15-24, 26-30 (NM_001291415.2)	KDR Full coding exonic coverage (NM_002253.4)
	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
KEAP1 Full coding exonic coverage (NM_203500.2)	KIT Full coding exonic coverage (NM_000222.3)	KMT2A Full coding exonic coverage (NM_001197104.2)	KMT2C Exons 1-6, 8-14, 16, 17, 22, 23, 25-59 (NM_170606.3)	KMT2D Full coding exonic coverage (NM_003482.4)	KRAS Full coding exonic coverage (NM_004985.5)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
LUC7L2 Full coding exonic coverage (NM_016019.5)	MALT1 Full coding exonic coverage (NM_006785.4)	MAP2K1 Full coding exonic coverage (NM_002755.4)	MAP2K2 Exons 1-8, 10, 11 (NM_030662.4)	MAP3K1 Full coding exonic coverage (NM_005921.2)	MDM2 Full coding exonic coverage (NM_002392.6)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
MECOM	MET	MITF	MLH1	MLLT3	MPL
Full coding exonic coverage (NM_004991.4)	Full coding exonic coverage (NM_000245.4)	Full coding exonic coverage (NM_001354604.2) (NM_000248.4)	Full coding exonic coverage (NM_000249.4)	Exons 1-5, 7-11 (NM_004529.4)	Full coding exonic coverage (NM_005373.3)
		Selected non-coding regions covered	▲	▲	Selected non-coding regions covered
MRE11 Full coding exonic coverage (NM_005591.4)	MSH2 Full coding exonic coverage (NM_000251.3)	MSH6 Full coding exonic coverage (NM_000179.3)	MTOR Full coding exonic coverage (NM_004958.4)	MUTYH Full coding exonic coverage (NM_001048174.2)	MYC Full coding exonic coverage (NM_002467.6)
Selected non-coding regions covered	Selected non-coding regions covered		Selected non-coding regions covered		Selected non-coding regions covered
MYCN Full coding exonic coverage (NM_005378.6)	MYD88 Full coding exonic coverage (NM_002468.5)	MYH11 Full coding exonic coverage (NM_002474.3) (NM_001040113.2)	MYOD1 Full coding exonic coverage (NM_002478.5)	NBN Full coding exonic coverage (NM_002485.5)	NCOA3 Full coding exonic coverage (NM_181659.3)
		▲	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
NF1 Exons 1-37, 40, 44-47, 49, 53 (NM_001042492.3)	NF2 Full coding exonic coverage (NM_000268.4)	NFE2L2 Exons 2-5 (NM_006164.5)	NOTCH1 Exons 2-34 (NM_017617.5)	NPM1 Exons 1, 2, 5-7, 11 (NM_002520.7)	NRAS Full coding exonic coverage (NM_002524.5)
Selected non-coding regions covered	Selected non-coding regions covered	▲	▲	Selected non-coding regions covered	
NRG1 Full coding exonic coverage (NM_013964.5)	NTRK1 Full coding exonic coverage (NM_002529.4)	NTRK2 Exons 10, 11, 13-14 (NM_006180.6)	NTRK3 Exons 14, 15 (NM_001012338.3)	NUP214 Full coding exonic coverage (NM_005085.4)	NUTM1 Full coding exonic coverage (NM_001284292.2)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
PALB2 Full coding exonic coverage (NM_024675.4)	PARP1 Exons 1-10, 12-23 (NM_001618.4)	PBX1 Full coding exonic coverage (NM_002585.4)	PDCD1 Full coding exonic coverage (NM_005018.3)	PDCD1LG2 Full coding exonic coverage (NM_025239.4)	PDGFRA Full coding exonic coverage (NM_006206.6)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered

Selected non-coding regions which are covered by the test are indicated above.

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PDGFRB Full coding exonic coverage (NM_002609.4)	PGR Full coding exonic coverage (NM_000926.4)	PHF6 Full coding exonic coverage (NM_001015877.2)	PIK3CA Exons 2-10, 14-21 (NM_006218.4)	PIK3CB Full coding exonic coverage (NM_006219.3)	PIK3R1 Exons 2-9, 11-16 (NM_181523.3)
Selected non-coding regions covered	Selected non-coding regions covered	▲		Selected non-coding regions covered	Selected non-coding regions covered
PML Full coding exonic coverage (NM_033238.3)	PMS2 Exons 2-4, 6-11, 13 (NM_000535.7)	POLD1 Full coding exonic coverage (NM_002691.4)	POLE Full coding exonic coverage (NM_006231.4)	PPM1D Full coding exonic coverage (NM_003620.4)	PPP2R1A Full coding exonic coverage (NM_014225.6)
Selected non-coding regions covered	▲	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
PTCH1 Full coding exonic coverage (NM_000264.5) (NM_001083603.3)	PTEN Exons 1-8 (NM_000314.8)	PTPN11 Exons 1-6, 8, 9, 11-15 (NM_002834.5)	RAD21 Full coding exonic coverage (NM_006265.3)	RAD51C Full coding exonic coverage (NM_058216.3)	RAD51D Full coding exonic coverage (NM_ 002878.4)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered			Selected non-coding regions covered
RAF1 Full coding exonic coverage (NM_002880.4)	RARA Full coding exonic coverage (NM_000964.4)	RB1 Exons 1-13, 16-27 (NM_000321.3)	RBBP6 Full coding exonic coverage (NM_006910.5)	RET Full coding exonic coverage (NM_020975.6)	RNF43 Full coding exonic coverage (NM_017763.6)
Selected non-coding regions covered	▲	Selected non-coding regions covered	▲	Selected non-coding regions covered	Selected non-coding regions covered
ROS1 Exons 32-37 (NM_001378902.1)	RPS14 Exons 3-5 (NM_005617.4)	RUNX1 Exons 4-9 (NM_001754.5)	RUNX1T1 Exons 2-12 (NM_001198679.3)	SETBP1 Full coding exonic coverage (NM_015559.3)	SF3B1 Exons 1-10, 12-21, 23-25 (NM_012433.4)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered			Selected non-coding regions covered
SH2B3 Full coding exonic coverage (NM_005475.3)	SLC29A1 Full coding exonic coverage (NM_001372327.1)	SMAD4 Full coding exonic coverage (NM_005359.6)	SMARCA4 Exons 2-10, 12-35 (NIM_003072:5) Exons 2-10, 12-36 (NIM_001387283.1)	SMARCB1 Full coding exonic coverage (NM_003073.5)	SMC1A Full coding exonic coverage (NM_006306.4)
Selected non-coding regions covered	▲	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
SMC3 Exons 1-25, 29 (NM_005445.4)	SMO Full coding exonic coverage (NM_005631.5)	SOX10 Full coding exonic coverage (NM_006941.4)	SPOP Full coding exonic coverage (NM_001007228.2)	SRSF2 Full coding exonic coverage (NM_001195427.2)	STAG2 Full coding exonic coverage (NM_001042750.2)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
STAT3 Full coding exonic coverage (NM_139276.3)	STAT5B Exons 2-6, 9-12, 14, 15 17-19 (NM_012448.4)	STK11 Full coding exonic coverage (NM_000455.5)	SUZ12 Exons 1, 2, 4, 7, 8, 10-16 (NM_015355.4)	TCF3 Full coding exonic coverage (NM_003200.5) (NM_001136139.4)	TCL1A Full coding exonic coverage (NM_021966.3)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	
TERT Full coding exonic coverage (NM_198253.3)	TET2 Full coding exonic coverage (NM_001127208.3)	TMPRSS2 Exons 2-5 (NM_005656.4)	TP53 Full coding exonic coverage (NM_000546.6)	TSC1 Full coding exonic coverage (NM_000368.5)	TSC2 Full coding exonic coverage (NM_000548.5)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered
U2AF1 Full coding exonic coverage (NM_006758.3)	VEGFA Full coding exonic coverage (NM_003376.6)	VHL Full coding exonic coverage (NM_000551.4)	WT1 Full coding exonic coverage (NM_024426.6)	XPO1 Full coding exonic coverage (NM_003400.4)	ZRSR2 Exons 1, 3-7, 9-11 (NM_005089:4)
Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered	Selected non-coding regions covered		

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Rearrangements









