

Tapestri Single-Cell DNA MDS Panel

Advance your understanding of the genetic heterogeneity underpinning myelodysplastic syndromes (MDS) by targeting **21 genes with 148 amplicons** for single-cell sequencing. Covering a combination of oncogenes and tumor suppressor genes, this panel is designed to cover some of the most commonly mutated genes associated with MDS

Panel Specifications

Metric	Value
Number of genes	21
Number of targets	398
Target type	SNVs
Number of amplicons	148
Coverage	100%
Panel size	27.1 kb
Amplicon length	175 - 275 bp
Panel uniformity: % of amplicons >0.2x mean	>=90%
Amplicon completeness: % of amplicons in >80% of cells	>=80%
Cell completeness: % of cells with >80% amplicons above 10 reads	>=80%
Verified NGS systems	MiSeq, NextSeq, HiSeq, NovaSeq
Recommended number of reads per sample	~89 M

Table 1: Panel specifications.

21-GENE MDS PANEL

ASXL1	FLT3	NF1	TP53
BCOR	GATA2	NRAS	U2AF1
CBL	IDH1	PTPN11	ZRSR2
DNMT3A	IDH2	RUNX1	-
ETV6	JAK2	SF3B1	-
EZH2	KRAS	TET2	-

Table 2: Panel gene targets.

Panel Targets

Gene	Exon	Protein-level Variants	cDNA Variants
ASXL1	11	R402; R404; K409; R417; N496; E513	
	12	Q588; Y591; A621; Q760; Q778; L866; G1397	
	19	R693	
BCOR	4	R63; Q224; Q312; G421; G479; V594; P663; P840; A967	
	8	K1194	
	9	H1333; R1341	
	10	R1361; R1435	

Gene	Exon	Protein-level Variants	cDNA Variants
BCOR	11	Q1494	
	12	A1503	
CBL	4	R206	
	8	Y371; L380; L380; C381; K382; C384; K389; M400; C404; W408	
	9	R343; P417; I423; T426; G440; A447; A474	
	11	P564; E613	
	13	M701	

Table 3: Panel content. Exon numbers are based on canonical isoform provided by NCBI's Reference Sequence database

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Panel Targets (cont'd)

Gene	Exon	Protein-level Variants	cDNA Variants
CBL	14	S728	
	Intron		c.1096-1G>C
DNMT3A	7	Q237; V265; E285	
	8	V296; W305; W313; R326	
	9	V339; L344; Q356; R366; A368	
	10	D389; F414	
	14	Y526; S535; G543; L547	
	16	R635	
	17	G646	
	18	G699; V704; S714; R720	
	19	F732; Y735; R736; L737; W753; G762; S770; R771	
	20	W795	
	22	S828; Q842; P849; D857; W860	
23	F868; R882; Q886; P904		
ETV6	2	Q12	
	5	R211	
	6	R353; R369; A377	
EZH2	5	E125; F145; I146; Y153	
	8	E249	
	9	N322	
	10	G335; S385; R387	
	11	Q470	
	14	C528	
	15	R561; Q570; C590; Q612	
	16	V626	
	17	A656; G660; K661; D664; S669; F670; L674	
18	V679; R684; S695; R690		
FLT3	18	M737	
	20	A814; D835	
	22	D909	

Gene	Exon	Protein-level Variants	cDNA Variants
GATA2	4	N297; N317	
	6	R384; L443	
IDH1	4	G105; R132	
	6	L216	
	7	G264	
	9	A341	
IDH2	4	R140; R159; R172	
JAK2	5	R122	
	7	F240; N249	
	9	S367; S398	
	14	V617	
	17	K728	
	20	I899	
	21	R923	
	21	R923	
KRAS	2	G15; D33	
	3	H95	
NF1	8	D283	
	9	S302	
	12	D424; P427	
	18	P678	
	21	C845; N916	
	22	A966	
	28	R1276	
	33	N1451; N1465	
	36	G1602	
	37	F1654	
	38	A1804	
	39	T1923	
	42	A2097	
	45	L2249	
	49	R2411; S2435	
	52	T2540	
	58	N2833	
NRAS	2	G12; G13	
	3	Q60; G61; Y64	
	3	Q60; G61; Y64	
	4	T148	

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Panel Targets (cont'd)

Gene	Exon	Protein-level Variants	cDNA Variants
PTPN11	3	N58; G60; D61; E69; A72	
	11	H444	
	13	S502; G503	
RUNX1	5	N139; S141; D160; L161; R162; R166; R169	
	6	A192; D198; R201; R204; Q262	
	7	E223; A251	
	8	G289; R320	
SF3B1	8	A364	
	13	E592	
	14	E622; R625; N626; H662; K666	
	15	K700; V701; I704; A708; G740	
	24	P1224; A1229	
	Intron		c.3757-8T>C
TET2	3	L103; K110; Q383; S420; E421; K423; H434; Q622; Q652; Q674; Q744; Q758; Q790; R814; Q913; Q916; G935; H937; Q966; E984; K1052; Q1053; E1057; Q1068; P1115	
	5	G1172; R1179; P1194	
	6	C1211; C1221; W1233; G1235; A1241; Y1245; L1248; E1250; R1261	
	7	C1271; G1282; F1287; G1288; S1290; W1291; C1298; K1310; E1318	
	8	L1322	
	9	C1358; R1359; G1370; T1393; T1393; D1376; F1377; C1378; A1379; H1380; R1404; Q1389; S1392	
	10	Q1414; V1417; R1465; E1492; Q1507	
	11	R1516; Q1624; Y1608; L1609; Q1627; Y1661; Q1680; K1752; Q1852; A1863; I1873; H1881; T1884; P1894; S1898; Y1902; Q1942; P1962	
	14	E510*	
	Intron		c.3954+1G>A

Gene	Exon	Protein-level Variants	cDNA Variants
TP53	4	S94; L130	
	5	T118; R181; H179	
	6	Q192; R196; V197; H214; V216; Y220	
	7	M243; R248; E258D	
U2AF1	8	E271; R273; C275; C238; P278; D281; R282	
	2	A26; S34	
ZRSR2	6	R156; Q157	
	8	G214	
	2	G41	
	3	E48; W153	
	4	E85	
	5	Q110	
	7	C181; D185	
	8	H191; F239	
	10	C280; Q281; R290; R295; C312	
	11	Q319; W340; E362; Y373	
	Intron		c.771+1G>A

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