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DATA SHEET

Tapestri Single-Cell DNA Myeloid Panel

Target SNVs and indels across **45 genes with 312 amplicons** for relevant mutations designed to cover a comprehensive set of myeloid disorders including acute myeloid leukemia (AML), myeloid dysplastic syndrome (MDS), myeloproliferative neoplasms (MPN), chronic myeloid leukemia (CML), chronic myelomonocytic leukemia (CMML), and juvenile myelomonocytic leukemia (JMML).

Panel Specifications

Metric	Value
Number of genes	45
Number of targets	1,208
Target type possible	SNVs. Indels, CNVs, LOH
Number of amplicons	312
Coverage	92.7%
Panel size	~65 kb
Amplicon length	125 - 375 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	~188 M

Table 1: Panel specifications.

45-GENE MYELOID PANEL

ASXL1	ERG	KDM6A	NRAS	SMC1A
ATM	ETV6	KIT	PHF6	SMC3
BCOR	EZH2	KMT2A	PPM1D	STAG2
BRAF	FLT3	KRAS	PTEN	STAT3
CALR	GATA2	MPL	PTPN11	TET2
CBL	GNAS	MYC	RAD21	TP53
CHEK2	IDH1	MYD88	RUNX1	U2AF1
CSF3R	IDH2	NF1	SETBP1	WT1
DNMT3A	JAK2	NPM1	SF3B1	ZRSR2

Table 2: Panel gene targets.

Panel Performance

Metric	Value
Panel uniformity	98.4%
Amplicon completeness	87.2%
Cell completeness	97.6%
Cells recovered	4,782
% reads mapped to genome	92.4%
% reads mapped to targets	84.2%
% reads mapped to cells	79.6%

Table 3: Panel performance. Data generated from a pure Raji cell line.

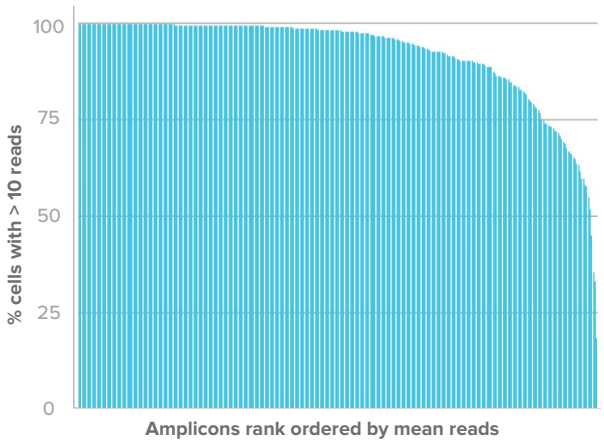

Figure 1: Cell completeness per amplicon.

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Panel Targets

Gene	Exon	Protein-level Variants	cDNA Variants
ASXL1	12	G652; E657; G658; G679; Q733; Q748; Q768; L775; Q778; W796; P808; Q829; K838; Q858; K909; G927; T957; W960; R965; G967; D1004; S1028; Q1039; Q1063; R1068; E1102; L1107; S1168; S1169; E1228; E1241; P1259; R1273; S1275; L1395; R1415; A1507	
ATM	40	N1983; I1986; S1988; L1989; E1991; G1998	
	63	R3008; M3011; R3047; G3051	
BCOR	4	A58; R243; P248; V253; P264; R342; P346; S355; G421; N521; S526; P602; A617; E630; P654; Y657; P670; L696; L702; E756; T759; L760; S897; F977; E994	
	5	E1001; C1010	
	7	Q1110; R1131; R1136; R1164	
	8	S1189; K1207; R1217; W1218; R1268	
	9	A1314; Q1322; K1325; A1344; Q1371; R1374; R1375	
	10	S1405	
	11	N1459; N1491; R1514	
	12	D1536; R1547	
	13	C1606	
	14	P1621	
	15	R1678; R1681	
BRAF	1	G8; E13; E26	
	2	H60; G69; H72	
	3	S102; T119	
	6	T241; G258; R271	
	7	F294; E304; A305; T310; I326	
	9	Q386; R389	
	10	P403; L406; S419	
	11	G464; G466; S467; G469; V471; Y472	
	12	K483; L485; N486; E501; L505	
	13	T529; W531; H539; H542	
	15	N581; D594; F595; G596; L597; T599; V600; K601	
	16	D629; Q636	
CALR	9	E364; K374; K385; E386	

Gene	Exon	Protein-level Variants	cDNA Variants
CBL	7	F336; L352	
	8	L380; C381; C384; C396; H398; C404	
	9	C416; P417; F418; R420	
	Intron		c.1096-1G>C; c.1228-2A>G
CHEK2	12	K416; Y433; S441; W454	
	16	R562; R562; R564; R566; P579	
CSF3R	14	R583; T618	
	15	S624; G634; T640	
	17	G683; M696; T717; E737; Q766; Q768; Q770; Q776; Y779; S810	
DNMT3A	1	P2	
	3	D92; E119; A122	
	9	A218; G223; Q231; V265	
	10	R288; W305; W313; R320	
	11	L344; A353; Q356; Q362	
	12	A380; Q402; W409; A410	
	13	E434; Y448; K464	
	14	P465; R484; E491	
	15	N501; E505; M513	
	16	Y533; G543	
	17	V563; R598; Q606	
	18	R635; V636	
	19	G685; R688; V690	
	20	G699; I705; C710; S714; V716; N717; Y724	
	21	R729; Y735; R736; R749; R771	
	22	I780; R792; P799; M801; R803	
	23	L815; E820; H821	
	24	T835; N838; Q842	
	25	W893; P904; F909; A910	
ERG	10	L313; Q315; E319; D345; D363; G394	
ETV6	1	Q7; C8	
	2	R14; S16; P19; P25; R39; R55	
	3	E100; R103; R105	
	4	H135; E145	

Table 4: Panel content. Exon numbers are curated from UCSC Genome Browser by collapsing the exons in the forward strand by start and stop site and then numbering the exons from 5' -> 3' end with the first exon at 5' end representing Exon 1.

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Panel Targets (cont'd)

Gene	Exon	Protein-level Variants	cDNA Variants
ETV6 (cont'd)	5	N156; R181; R202; P204; R210; P214; R217; E250; R259; Q260; R309; D311; M319; P324; E327	
	6	S352; R359; R369; R378; G381; H383	
	7	Y391; R396; R399; Y401; Y402; K403; K409; L415	
	8	R430; R433	
EZH2	2	V13; R16; R25	
	3	I55; R63	
	4	N102; A103	
	5	F145; G159	
	6	D185	
	7	R213; R216	
	8	E246; E249; A255; R288	
	9	N322	
	10	R347	
	11	E396; Q420; S443; T467	
	12	R502	
	13	K515	
	14	C548; K550	
	15	T573; P577	
	16	V626; S644; Y646	
	17	Q653; A656; G660; D664; M667; N675	
	18	A682; R684; R690; N693; S695	
	19	Y731	
	20	E745	
	Intron		c.2195+1G>A
FLT3	14	V491; Q494; I507; S519; S531; Y572; L576; Q580; F594; Y599	
	15	G617; S618; A627; S638; M659; K663; M664; N676; A680	
	20	L832; R834; D835; I836; D839; N841	
GATA2	4	A318; G320; L321; H323; R330	
	5	L359; R361; R362; A372	
GNAS	8	D839; R842; R844	
IDH1	4	G70; R132	
IDH2	4	R140; R172	
JAK2	12	F537; R541; N542; E543	
	14	L611; V617; C618	

Gene	Exon	Protein-level Variants	cDNA Variants
KDM6A	3	A112	
	4	A115; Q117; Q123; Y126; K128	
	6	R165; R172; L187	
	8	A212	
	9	Q240	
	10	Q271; K275	
	11	S295; V300; Q301; K313; W321	
	13	A437	
	15	R481; R484; M505	
	16	I598; V607; Q611; R621; W632	
	17	Q679; T703; Q710; H733; M754; T794; Q863	
	20	E999	
	23	K1097; E1102; R1111; S1114; Q1133; G1140	
	25	V1205G Q1212; G1223; Q1229	
	26	R1255; Y1256; R1279	
	27	Q1302; G1314; G1321	
	28	R1351; G1367; Q1377; Y1387	
KIT	2	R49; V50; D52; E53; V64	
	8	Y418; D419	
	9	P468; E490; K509; N512	
	10	V560; E561; D572; P573; L576; P577; D579	
	13	R634; V654; N655	
	17	R796; D816; K818; D820; N822; Y823; V825	
KMT2A	3	R503; H708; R736; R745; P773; S774; S783; S802; Q814; S859; R862; R886; P907	
	7	K1218; T1245; P1252	
	9	I1393N; D1396N	
	10	E1412; E1416; L1423	
	27	L2368; H2374; R2382; E2438; E2442; T2522; M2532; M2602; D2721; H2769; D2820; S2935; S2956; D3005; G3020; N3064; N3087; R3228; P3239; L3462; A3507; P3534	
KRAS	2	G12; G13; V14; L19; Q22	
	3	T58; A59; G60; Q61; E63	
	4	E98; D108; A130; S136; G138; P140; E143	
MPL	10	S505; W515	

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Panel Targets (cont'd)

Gene	Exon	Protein-level Variants	cDNA Variants
MYC	2	P17; S21; F22; N24; Y27; A59; T73; P74; F153; S161; L164; A180; S241; S264	
	3	D273; Q321; H322; L348	
MYD88	4	M227; Y235; S238	
	5	T289; W294; R296	
NF1	2	Y49; T59	
	7	W221; N222	
	8	D254; E258; W267	
	10	R385	
	11	R416	
	12	D424; G453; R461	
	17	Q616; R652	
	18	S749	
	19	R765; E767	
	20	T780; H781; Q786	
	21	E872	
	22	T958; Q959	
	24	V1042; W1048	
	27	Q1174; L1183	
	28	A1240; R1241; R1276	
	29	R1306; W1314	
	30	R1362	
	35	R1534	
	37	L1623; V1627	
	38	A1767; R1769; Q1806	
	39	Q1891	
	42	D2077	
	47	S2309	
	53	Q2589; Q2616	
	54	A2624	
	55	Q2697; Q2699	
	Intron		c.730+2T>G; c.1260+1G>A; c.1260+1G>T; c.7869+5G>C; c.7869+5G>A
NPM1	11	L287; W288; Q289; W290; L294	
NRAS	2	G12; G13	
	3	G60; Q61	
PHF6	2	M1; S2; R24; C45	
	4	Y105; R116	

Gene	Exon	Protein-level Variants	cDNA Variants
PHF6 (cont'd)	5	K132; E139; A140	
	6	R163; N171	
	7	R225; H239; C242	
	8	D262; R274; G275	
	9	G287; C297; I314	
	10	H329; G348; Q359; N363	
	Intron		c.586-1G>T; c.834+1G>C
PPM1D	6	S446; R552	
PTEN	15	H93; G129; R130; G132; C136; Y155	
	17	Q214; S229; R233; E242; Q245; P246; K267	
	Intron		c.635-1G>A
PTPN11	3	N58; G60; D61; E69; F71; A72; T73; E76	
	7	R265; Y279; I282	
	12	A461	
	13	S502; G503; Q510; T511; R512	
RAD21	6	G164; R168; S175	
	7	G239; D262; D263; S271	
	10	L393; A410; D429; Q432; R437	
	11	D484; E486; P490	
RUNX1	2	E8; S12; M18	
	4	L56; A66; L98; S100; W106; R107	
	5	S141; L161; R162; G165; R166; D198; P247	
	6	R201; R204	
	7	R232; T246; R250; Q266; M267	
	8	S314; R320; S322	
	9	P357; A391; Q397	
	Intron		c.805+1G>A; c.508+1G>A;
SETBP1	4	S376; E858; S867; D868; G870; I871; P906; V1101; P1130; Q1244; E1247; S1287; S1330	
SF3B1	13	V576; R590; E592; R594; E595	
	14	E622; Y623; R625; N626; H662; T663; K666	
	15	K700; V701; R702; I704; E722	
	16	G742; A744; G751; L773; R775	
	17	E809; P812; R828	

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SMC3	13	R381; N435	
	19	R661; G662	
	25	S994; M1015	
	28	I1171	
SMC1A	11	R586	
	16	I819; K829; K853	
	17	K854; R895; G899	
	Intron		c.2563-1G>A
STAG2	5	R69; K92	
	6	W102	
	7	Q140; R146; D153; E154	
	8	Q167; V181; R184; L221; A222	
	9	M224; T228; L235; L237; N240; E251; R271; E273	
	20	Y636; Q656; D663; K664; E675	
	25	Y815; D845	
	29	E984; L997; R1012	
	30	R1033; R1045; T1079	
	Intron		c.819+39C>A
STAT3	20	S614; E616; G618	
TET2	3	C25; P29; L34; Q80; Q108; E135; S152; Q185; V218; H222; Q232; Q317; Q321; Q323; Q324; Q325; S354; G355; P363; Q383; Q414; Q417; S466; Q481; R550; P555; Q557; P562; Q622; Q635; Q652; Q654; Q758; Q769; S794; Q810; R814; F868; Q876; Q892; G898; Q963; Q966; Q1020; Q1053; S1059; Q1068; Q1083	
	4	E1144; Y1148; N1156; R1167	
	5	E1178; Q1191; W1198	
	6	R1214; R1216; C1221; V1227; Y1245; Y1255; R1261; R1262	
	7	C1271; F1287; G1288; C1289; Y1294	
	8	L1322; E1323; Q1327	
	9	L1340; A1355; R1359; R1366; H1380; R1383	
	10	R1465; S1486	
	11	A1505; R1516; Q1548; Y1598; G1606; Y1618; N1641; Y1659*; Q1702; L1721; I1762; H1778; L1819; Q1828; G1861; H1868; G1869; S1870; I1873; P1889; P1894; S1898; H1904; P1962; R1966	

Gene	Exon	Protein-level Variants	cDNA Variants
TP53	4	D3; L4; D9; D10; E17; R26; P33; V34; W52; S55; R71; A80	
	5	S88; K93; C102; W107; P112; V118; R119; A120; Y124; R136; C137; H140	
	6	Q153; L155; I156; R157; Y166; R174; H175; V177; P180; Y181; P184; C207; I211; S213	
	7	Y195; Y197; M198; C199; S202; M204; G206; R209; R210; I212	
	8	V233; R234; A237; R243; E246; E247; E259; R267	
	9	Q278; Q292	
	10	R298; R303; E319; S327	
	11	G335; Q336; S337; F346	
	Intron		c.-83C>A; c.-97T>A; c.-110A>G; c.-22+1G>A; c.-15T>A; c.876+1G>A
U2AF1	2	I24; R28; H29; S34; R35	
	6	W134; P139; Q157	
WT1	7	R374; R385; S386; A387; N404; K405; R406; S411; Q414	
	8	R435; R439	
	9	G452; R463; R467; D469; H470	
ZRSR2	2	R27; R36	
	3	E48	
	4	E93; A95	
	5	E123; R126; E133	
	6	A143	
	7	Q153; Q154; C181; F183	
	8	M211; Q213; Q235	
	10	R295; P303; V304; R306	
	11	W340; E394; R433; G438; R452; R462; R464	

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