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DATA SHEET

Tapestri Single-Cell DNA CLL Panel

Advance your understanding of the genetic heterogeneity underpinning chronic lymphocytic leukemia (CLL) by targeting **32 genes with 274 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 CLL.

Panel Specifications

Metric	Value
Number of genes	32
Number of targets	1,277
Target type possible	SNVs. Indels, CNVs, LOH
Number of amplicons	274
Coverage	91.9%
Panel size	~53 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	~165 M

Table 1: Panel specifications.

32-GENE CLL PANEL

ATM	CHD2	FBXW7	NOTCH1	SPEN
BCOR	CREBBP	KRAS	NRAS	TP53
BIRC3	CXCR4	LRP1B	PLCG2	XPO1
BRAF	DDX3X	MAP2K1	POT1	ZMYM3
BTK	EGR2	MED12	RPS15	-
CARD11	EZH2	MYD88	SETD2	-
CD79B	FAT1	NFKBIE	SF3B1	-

Table 2: Panel gene targets.

Panel Performance

Metric	Value
Panel uniformity	98.5%
Amplicon completeness	86.5%
Cell completeness	94.0%
Cells recovered	8,160
% reads mapped to genome	95.4%
% reads mapped to targets	93.4%
% reads mapped to cells	76.8%

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

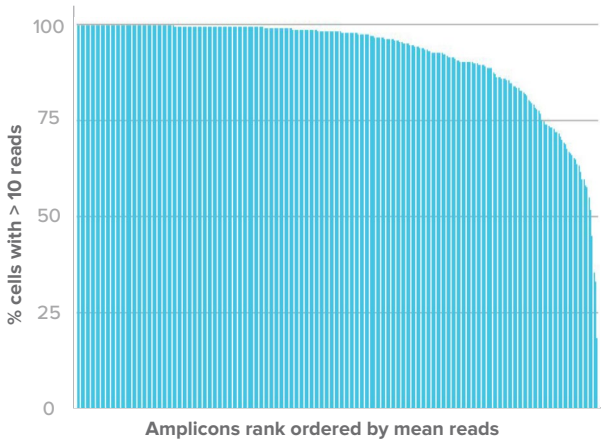

Figure 1: Cell completeness per amplicon.

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Panel Targets

Gene	Exon	Protein-level Variants	cDNA Variants
ATM	3	R35	
	4	E73	
	5	L120; Y123; S131; C141; W164	c.361_362insTG; c.477_481del
	6	Q201	c.580_581insT
	7	E223; L262; K293	c.838_842del
	8	E304; W308; H325	c.1059T>A
	9	Q374, P411	
	10	P424; L436; K468; L481; RG493; R521	c.1377_1377delT
	11	L546	
	12		c.1875_1876del
	13		c.1920_1921insA
	15	T761; R772	c.2282_2283del
	18	LC906	
	21	K1030	
	22	N1062; DNHH1080fs	
	23	S1105; E1133	
	24	Q1171	
	25	P1235	
	27	EL1346	c.4096_4097del
	28	P1376	
	29	C1423; I1469	
	30	L1517; G1522	
	31	R1575; I1576	c.4638_4641del
	32	SV1601; Q1620; 1624_1625HK>Q	
	34	D1682	
	35	G1746	
	36	I1804	
	37	P1843; R1875	c.5599delC
	38	E1894	
	39	Y1938	
	40	L2001	
	41	Y2019; G2020	c.6019G>T; c.6027C>G
	42	L2033; H2038; E2039; Y2049	
	43	Y2080	c.6219_6220delCT
	44	H2125; S2127; L2135	
	45	E2164; E2181	

Gene	Exon	Protein-level Variants	cDNA Variants
ATM (cont'd)	47		c.6880G>A
	49	Y2398; Q2399; F2410; E2423; L2427; 2427_2429LRE>Q; K2431	
	50	Y2437; Q2442; L2445; L2450	c.7308de-lA; c.7313C>A; c.7327C>T
	51	Q2522; A2524	
	52	TL2556	c.7671_7674delGTTT
	53	R2598; A2626	
	55	G2695; K2717	
	56	D2720; D2721; D2725; V2727; V2731; F2732	
	58	Y2817; R2832; Y2833; F2839; P2842	
	59	M2616; N2875; I2888; L2890	
	60	V2892; G2891; G2919; G2925	
	61	T2944; T2947	
	62	V2951; Y2954; Y2969; Q2972	
	63	N3003; A3006; R3008; G3030; M3011	c.9139C>T
	Intron		c.2921+1G>A; c.2921+1G>C; c.2921+1G>T; c.4777-2A>T; c.5178-1G>T; c.5178-1G>A; c.5320-2A>G; c.5320-2A>T; c.6572+1G>T; c.663-2A>G; c.72+2T>C; c.8011-1G>T; c.8988-1G>C; c.8988-1G>A;
BCOR	4	E133; T200; P463; L487; Y657; Y985	c.1486_1487insT; c.433_434del; c.264_277del; c.2967_2971delT-CAGC; c.2443_2444insT; c.930_948delTAAG-CAGCCCAGGGTTCCC
	6		c.3090_3093del; c.3088_3089del
	7		c.3311delA
	9	E1348*	c.4140_4141del; c.4097_4100del; c.4038_4038delA; c.4038_4039delAG
	10	N1425	c.4274A>G; c.4208C>G
	12	A1503	c.4720_4720delC; c.4619_4629delT-TATGGAAAAG

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
BCOR (cont'd)	13	V1581	
	Intron		c.4429-1G>A; c.4429-1G>C
BIRC3	7	SP351; I427; R428; E429	c.1138delC; c.1233_1237delACTAG; c.1262_1263insCAATGCAGAAGATGAAATAAGGGAAG; c.1276_1277insA; c.1281_1288del; c.1282_1283insG; c.1290_1291insGA; c.1291_1292insA
	8	FQ455; H457; S467; S513; V520	
	9	T598; V599	
	10	P543; Q547; R549; Q552; E554; R555; K558; C557; C578; L585	c.1639delC; c.1641_1642insT; c.1642delT; c.1651_1652insT
	Intron		c.1580-61A>T; c.1580-24A>G
BRAF	11	G469	1397G>C; 1406G>C
	12	K483; E501	
	15	N581; D594; F595; L597; K601	1781A>G; 1799T>A; 1801A>G
	16	D638	
BTK	15	C481	
CARD11	3	E24	
	4	R75; V90; E93; F97; R113; F115	
	5	G123; G126; T128; F130; T167; T169; R170; R179; D200; R207; K215; S222; R223	
	6	D230; N237; E241; L245; Q249; S250; L251; R260; R271	
	7	R292; E306; R337	
	8	D357; Y361; R364	
	Intron		c.-125-21889C>T
CD98B	6	Y208	
CHD2	2	LH15	
	3	P86	c.134_135insTG
	13	R485	
	15	R621	
	16	D617; H620; T645	
	17	L698; K702; K712	
	19	L793	

Gene	Exon	Protein-level Variants	cDNA Variants
CHD2 (cont'd)	20	R836	
	21	D860; R900	
	22	R914; QRM941	c.2806delG
	24	A1013	
	25	R1072	
	26	S1099	
	27	F1146	
	30	A1255; L1270	
	31	L1321	
	32	L1339	
	33		c.4165_4168del
	34	I1471	
	35	Q1485	
	36	F1543	
	Intron		c.4592+2T>G; c.-224+2379T>C; c.3066+1G>C; c.3596-20_4906+20del; c.417+252C>T; c.4413+1G>A
CREBBP	13		c.2400delG
	31		c.5825T>C
CXCR4	2	T342	c.1022_1023insT
DDX3X	1	Q15	
	2	S24	
	4	F52	
	6	P167; E180	
	7	R218	
	10	C298; P324; M330; R333	
	11	T369	
	12	S410; I415; Q417; S429	
	13	L445; G465	c.1470delA
	14	R528	
	Intron		c.1026-1G>C
EGR2	2	E356; H384; D411	
EZH2	9	N322	
FAT1	10	P2171	

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Panel Targets (cont'd)

Gene	Exon	Protein-level Variants	cDNA Variants
FBXW7	2		c.43_44insCTC
	4	A215	
	5	F280	
	7	Q358; R367	
	8	R393	c.1161_1162delAC
	9	W425; G437; T463; R465	c.1394G>A
	10	R479; D480; W492; R505	c.1508delC; c.1436G>A
	11	G597; W606	c.1807_1855+75del
	12	R689	
	Intron		c.1419-448G>A; c.1419-530T>A; c.1419-866C>G; c.1418+974T>C; c.1418+769A>G; c.1418+679T>C; c.1418+154C>T; c.1418+109T>A
KRAS	2	G12; G13; Q22	c.34G>C; c.35G>A; c.35G>A; c.35G>C; c.38G>A; c.64C>A
	3	T50; T59; Q61; S65	c.176C>G; c.182A>G
	4	K117; A146	c.351A>C; c.351A>T; c.436G>C; c.437C>T
LRP1B	38		c.6148G>T
MAP2K1	2	F53; K57	c.171G>T
	3	C121; P124; G128	
	6	R201; E203	
MED12	1	E33; L36	95_97del
	2	Q43; G44; A59	
	8	L404	
	21	R696	
	25		c.3508C>T
	42	Q2072	
MYD88	2	Q143	
	3	G168; D184; R209; V217; S219	
	4	M232T; Y240C; S243N	
	5	*160; R264; L265; R301	c.659T>C; c.794T>C; c.*227A>T; c.*368delT; c.*407delG; c.*877delC; c.*1025T>C; c.*1084A>C; c.*1163A>G; c.*1304A>G; c.*1368G>C; c.*1514C>T; c.*1623T>C; c.*1698C>A; c.*1728C>T

Gene	Exon	Protein-level Variants	cDNA Variants
NFKBIE	1	T261	c.759_762del; c.677delG
	2		c.819_825del
	3	T296	
	5		c.1270_1271insATG
NOTCH1	16	T825	
	25	C1357; P1377; C1391; D1517; Q1527	
	26	L1574; V1578; L1585; F1592; L1593; L1596; R1598; L1600; P1641	
	27	V1676; L1678; I1680	
	28	R1758; P1770; R1783; R1784; G1788	
	34	R2104; K2177; K2181; Y2209; T2297; Q2440; Q2459; E2460; P2462; Q2501; P2514	"c.6827_6831del; c.6911T>A; c.6995_7011delCAGGCCCCCTGAGCACA ; c.7318C>T; c.7330C>T; c.7353_7353delG; c.7369_7377CTGCCCCAG>T; c.7375C>T; c.7388_7388delC; c.7388_7390CCC>G; c.7519_7529delCACCCCTTCCT; c.7541_7542del"
	Intron		c.5130_5131insAGCCTCAACATCCCCTACAAGATCGAGGCCGTGCAGAGA
NRAS	2	G12; G13; S17	c.38G>A; c.35G>A; c.34G>A
	3	Q61	c.182A>G
	4	A146	
PLCG2	19	R665	
	20	S707; R742	
	24	L845	
	27	D993	
POT1	5	L3	c.1A>T
	6	N8; Q16; K33; Y36; S38; K39	c.347delC
	7	D42; S45; T58; S63; Y66; Y73; D77	
	8	Y89; Q94; L136; R137	
	9	W194; Y223; H226	
	10	Y242; H266; G268; G272; R273; G274	
	13		c.1072_1073insT

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Panel Targets (cont'd)

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POT 1 (cont'd)	14		c.1300_1301insA
	18		c.1781_1782del
	Intron		c.-39-2A>T; c.125-2A>G
RPS15	4	G96; G99; P98; S106; K112; A135; T136; P138; S139; G141; T143; H144; S145; S146; K152	
SF3B1	1	H8	
	6	A188	
	12		c.1606C>G
	13	E592; R594; E595	
	14	E622; Y623; R625; N626; V635; Q659; H662; T663; K666	c.1874G>A; c.1876A>G; c.1876A>T; c.1996A>G; c.1997A>C
	15	K700; V701; I704; A711; G740; K741	c.2098A>G
	16	G742; A744; L747; G751; Y752; 773_774insL; R775; P780; D781; K786	c.2225G>A
	17	E802; E809; P812; R828	
	19	T916; T935; R939; R957; M962	
	23	A1168	
	Intron		c.1438-2A>T
SETD2	3	C805	c.3460_3463del
	12	K1969	
	15		c.6299delA
SPEN	11	Q628; S2139	c.2591_2592delAA; c.2645_2645delG; c.3096_3099delAGGA; c.3259A>T; c.3441_3442del; c.3552_3553del; c.3703_3731del; c.3973_3977del; c.3984_3987delATCT; c.6762delG; c.7624A>T
TP53	4	E51; Q52; W53; L111	c.232_233insA
	5	G115; R181; S127; L130; N131; A138; C141; V143; V147; P151; V157; R158; A159; A161; Y163; R170; V173; R174; R175; C176; H179; V186	c.261delC; c.410_411del; c.417delG
	6	K132; H193; I195; R196; V197; G199; Y205; R213; H214; S215; V216; Y220; C238	c.456_457insC; c.463_474del; c.469G>T; c.524G>A; c.528_528delC; c.534C>A
	7	R209; I232; Y234; N235; Y236; M237; C238; S241;C242; G245; M246; R248; R249; I251; I255; L257	c.566_581del; c.601_602insA; c.625_626delAG; c.626_627del; c.637C>T; c.641A>G; c.647T>G; c.649_650insCATAGTGTG; c.652_654del

Gene	Exon	Protein-level Variants	cDNA Variants
TP53 (cont'd)	8	272_274VRV>V; E271; R273; C275; A276; P278; R280; D281; 282_283insRQ; E286	c.695T>C; c.706_707insAC; c.721delT; c.742C>T; c.743G>A; c.747G>T; c.767_782CACTGGAAGACTCCAG>ACCGT
	9	A307	c.818G>A; c.818G>C; c.830G>A; c.830G>T; c.842A>T; c.847_848insAGCCCGG
	10	R342	c.1024C>T; c.1028delA
	11		c.*893C>T; c.*840C>A; c.*826G>A; c.*779delC; c.*772delT; c.*735C>A; c.*626C>T; c.*893C>T; c.*772delT; c.*565G>T; c.*544G>T; c.*826G>A; c.*448T>C; c.*387C>A; c.*382C>T; c.*346G>T; c.*544G>T; c.*327C>T; c.*565G>T; c.*544G>T
	Intron		c.442+1G>C; c.442+1G>A; c.442+1G>T; c.556-2A>C; c.556-2A>G; c.556-2A>T; c.803-2A>C; c.803-2A>G; c.803-2A>T; c.803-2delA
XPO1	15	E571	c.1711G>A
	16	D624	
	17	A636	
	20	A805	
ZMYM3	2	P48; S53; Y87; S194	c.327_334delTCAGACCC
	5	Q322	
	6	Q399	
	7	D434; C451	
	8		c.1538_1539del
	9		c.1700_1701insT
	10		c.1784_1785insA; c.1750_1751delGA
	11		c.1836_1836delC
	16	P883; P887; P895	
	17	V898	
	20	W1062	c.3213G>A
	21	Y1113	
	23	F1206; Q1227	c.3660delT
	24	F1290; S1305	

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