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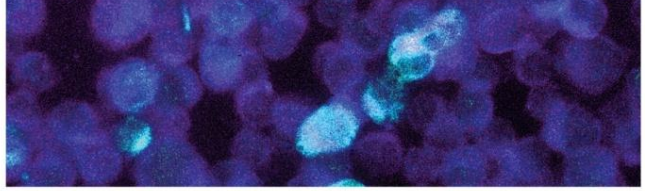

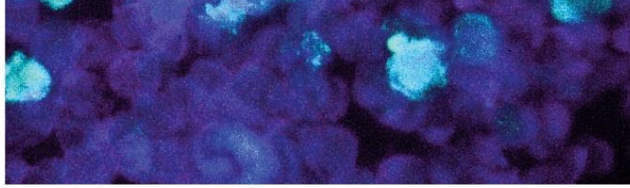

ATCC™

LEUKEMIA CELL LINE PANEL

The Leukemia Cell Line Panel (ATCC® No. TCP-1010™) is comprised of 7 leukemia cell lines representing Acute Myeloid Leukemia (AML), Acute Monocytic Leukemia (AMoL), Chronic Myeloid Leukemia (CML), and Acute Lymphoblastic Leukemia (ALL). Each culture contains genomic mutations in one or more of the following genes according to the Sanger COSMIC database: CDKN2A, KDM6A, TP53, NRAS, NOTCH1, PTEN, FBXW7, FLT3, KRAS, MLH1, and PIK3R1. The table below provides more information for the cell lines included in this panel.

ATCC® No.	Name	Tumor Source	Disease	Mutant Gene	Zygosity	Gene Sequence	Protein Sequence
CRL-2724™	KASUMI-1	primary	acute myeloid leukemia (AML)	TP53	homozygous	c.743G>A	p.R248Q
CCL-240™	HL-60	primary	acute myeloid leukemia (AML)	CDKN2A	homozygous	c.238C>T	p.R80*
				NRAS	heterozygous	c.182A>T	p.Q61L
				TP53	homozygous	c.1_1182del1182	p.0?
TIB-202™	THP-1	primary	acute monocytic leukemia (AMoL)	CDKN2A	homozygous	c.1_471del471	p.0?
				KDM6A	homozygous	c.1_1923del1923	p.0
				NRAS	heterozygous	c.35G>A	p.G12D
CCL-243™	K-562	primary	chronic myeloid leukemia (CML)	CDKN2A	homozygous	c.1_471del471	p.0?
				TP53	homozygous	c.406_407insC	p.Q136fs*13
CRL-1873™	RS4;11	metastasis	acute lymphoblastic leukemia (ALL)	CDKN2A	homozygous	c.1_471del471	p.0?
CRL-1582™	MOLT-4	primary	acute lymphoblastic leukemia (ALL)	CDKN2A	homozygous	c.1_471del471	p.0?
				NOTCH1	heterozygous	c.7544_7545delCT	p.P2515fs*4
				NRAS	heterozygous	c.34G>T	p.G12C
				PIK3R1	heterozygous	c.1355_1363>CTGGAGGGAGTAGGATTA	p.Y452_Q455>SGGSRIK
				PTEN	homozygous	c.800delA	p.K267fs*9
				TP53	heterozygous	c.916C>T	p.R306*
CCL-119™	CCRF-CEM	primary	acute lymphoblastic leukemia (ALL)	CDKN2A	homozygous	c.1_471del471	p.0?
				FBXW7	heterozygous	c.1393C>T	p.R465C
				FLT3	heterozygous	c.1879G>A	p.A627T
				KRAS	heterozygous	c.35G>A	p.G12D

The mutation data was obtained from the Sanger Institute Catalogue Of Somatic Mutations In Cancer web site, http://www.sanger.ac.uk/cosmic Bamford et al (2004) The COSMIC (Catalogue of Somatic Mutations in Cancer) database and website. Br J Cancer, 91,355-358. ATCC and The Sanger Institute provide these data in good faith, but make no warranty, express or implied, nor assumes any legal liability or responsibility for any purpose for which the data are used. The ATCC trademark and trade name, any and all ATCC catalog numbers, and any other trademarks listed are trademarks of the American Type Culture Collection unless indicated otherwise. ATCC products are intended for laboratory research only. They are not intended for use in humans, animals or diagnostics.

Image courtesy of Stacy Howard, CDC.

ATCC® No.	Name	Tumor Source	Disease	Mutant Gene	Zygosity	Gene Sequence	Protein Sequence
				MLH1	heterozygous	c.298C>T	p.R100*
				MLH1	heterozygous	c.790+1G>A	p.?
				NOTCH1	heterozygous	c.4783_4784ins36	p.R1595>PRLPHNSSFHFLR
				PTEN	homozygous	c.80_492del413	p.?
				TP53	heterozygous	c.524G>A	p.R175H
				TP53	heterozygous	c.743G>A	p.R248Q

The mutation data was obtained from the Sanger Institute Catalogue Of Somatic Mutations In Cancer web site, http://www.sanger.ac.uk/cosmic Bamford et al (2004) The COSMIC (Catalogue of Somatic Mutations in Cancer) database and website. Br J Cancer, 91,355-358. ATCC and The Sanger Institute provide these data in good faith, but make no warranty, express or implied, nor assumes any legal liability or responsibility for any purpose for which the data are used. The ATCC trademark and trade name, any and all ATCC catalog numbers, and any other trademarks listed are trademarks of the American Type Culture Collection unless indicated otherwise. ATCC products are intended for laboratory research only. They are not intended for use in humans, animals or diagnostics.