



TRIPLE NEGATIVE BREAST CANCER PANELS

ATCC has developed three Triple Negative Breast Cancer Panels based on how cell lines are classified into one of 6 subtypes. Triple Negative Breast Cancer Panel 1, Basal-like Morphology (**ATCC® No. TCP-1001™**) is comprised of 9 triple negative breast tumor cell lines that share a basal-like morphology. Triple Negative Breast Cancer Panel 2, Mesenchymal & Luminal Morphology (**ATCC® No. TCP-1002™**) is comprised of 6 triple negative breast tumor cell lines that share a mesenchymal-like morphology or LAR subtype. Triple Negative Breast Cancer Panel 3 (**ATCC® No. TCP-1003™**) contains all the items in ATCC® TCP-1001™ and ATCC® TCP-1002™ plus 2 triple negative breast cancer cell lines with an unclassified morphology.

ATCC® No.	Subtype ²	ATCC® No.	Name	Histology	Tumor Source	Mutant Gene	Zygoty	Gene Sequence	Protein Sequence		
Triple Negative Breast Cancer Panel 1 (ATCC® No. TCP-1001™)	Basal-Like Morphology	BL1	CRL-2331™	HCC1599	Primary ductal carcinoma	primary	BRCA2	homozygous	c.4550_4559del10	p.K1517fs*23	
							TP53	homozygous	c.673-2A>T	p.?	
			CRL-2336™	HCC1937	Primary ductal carcinoma	primary	BRCA1	homozygous	c.5266_5267insC	p.Q1756fs*74	
						TP53	homozygous	c.916C>T	p.R306*		
				CRL-2321™	HCC1143	Primary ductal carcinoma	primary	TP53	homozygous	c.743G>A	p.R248Q
				HTB-132™	MDA-MB-468	Adenocarcinoma	metastasis, pleural effusion	PTEN	homozygous	c.253+1G>T	p.?
								RB1	homozygous	c.265_2787del2523	p.?
								SMAD4	homozygous	c.1_1659del1659	p.0?
								TP53	homozygous	c.818G>A	p.R273H
		CRL-2314™	HCC38	Primary ductal carcinoma	primary	CDKN2A	homozygous	c.1_471del471	p.0?		
						TP53	homozygous	c.818G>T	p.R273L		
	BL2	CRL-2315™	HCC70	Primary ductal carcinoma	primary	PTEN	homozygous	c.270delT	p.F90fs*9		
						TP53	homozygous	c.743G>A	p.R248Q		

ATCC® No.	Subtype ²	Web Link	Name	Histology	Tumor Source	Mutant Gene	Zygoty	Gene Sequence	Protein Sequence	
ATCC® No. TCP-1001™, continued	Basal-Like Morphology	CRL-2335™	HCC1806	Primary acantholytic squamous cell carcinoma	primary	CDKN2A	homozygous	c.1_471del471	p.0?	
						KDM6A	homozygous	c.444_564del121	p.0	
						STK11	homozygous	c.1109_1302del194	p.?	
						TP53	homozygous	c.766_767insAA	p.T256fs*90	
		IM	CRL-2322™	HCC1187	Primary ductal carcinoma	primary	TP53	homozygous	c.322_324delGGT	p.G108del
		HTB-123™	DU4475	Carcinoma	metastasis, skin	APC	homozygous	c.4729G>T	p.E1577*	
						BRAF	heterozygous	c.1799T>A	p.V600E	
MAP2K4	homozygous					c.1_1200del1200	p.0?			
				RB1	homozygous	c.1_2787del2787	p.0?			

ATCC® No.	Subtype ²	Web Link	Name	Histology	Tumor source	Mutant Gene	Zygoty	Gene Sequence	Protein Sequence	
Triple Negative Breast Cancer Panel 2 (ATCC® No. TCP-1002™)	Mesenchymal-Like Morphology	M	HTB-122™	BT-549	Ductal carcinoma	primary	PTEN	homozygous	c.823delG	p.V275fs*1
							RB1	homozygous	c.265_607del343	p.?
							TP53	homozygous	c.747G>C	p.R249S
		MSL	HTB-126	Hs 578T	Carcinoma	primary	CDKN2A	homozygous	c.1_471del471	p.0?
							HRAS	heterozygous	c.35G>A	p.G12D
							PIK3R1	homozygous	c.1358_1359insTAA	p.N453_T454insN
							TP53	homozygous	c.469G>T	p.V157F
		HTB-26™	MDA-MB-231	Adenocarcinoma	metastasis, pleural effusion	BRAF	heterozygous	c.1391G>T	p.G464V	
						CDKN2A	homozygous	c.1_471del471	p.0?	
						KRAS	heterozygous	c.38G>A	p.G13D	
				NF2	homozygous	c.691G>T	p.E231*			
				TP53	homozygous	c.839G>A	p.R280K			

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.

ATCC® No.	Subtype ²	Web Link	Name	Histology	Tumor source	Mutant Gene	Zygoty	Gene Sequence	Protein Sequence
ATCC® No. TCP-1002™, continued	Mesenchymal-Like Morphology	HTB-130™	MDA-MB-436	Adenocarcinoma	metastasis, pleural effusion	BRCA1	homozygous	c.5277+1G>A	p.?
						RB1	homozygous	c.607_608ins227	p.G203fs*9
	HTB-24™	MDA-MB-157	Medullary carcinoma	metastasis, pleural effusion	NF1	homozygous	c.8253_8268del16	p.S2751fs*27	
					TP53	homozygous	c.261_286delAGCCCCCTCTGGCCCCTGCATCTT	p.A88fs*52	
LAR	LAR	HTB-131™	MDA-MB-453	Carcinoma	metastasis, pleural effusion	CDH1	homozygous	c.1913G>A	p.W638*
						PIK3CA	heterozygous	c.3140A>G	p.H1047R
Contained in ATCC® No. TCP-1003™, described below.	Unclassified Morphology	HTB-19™	BT-20	Carcinoma	primary	CDKN2A	homozygous	c.1_471del471	p.0?
						PIK3CA	heterozygous	c.1616C>G	p.P539R
						PIK3CA	heterozygous	c.3140A>G	p.H1047R
						TP53	homozygous	c.394A>C	p.K132Q
		CRL-2324™	HCC1395	Primary ductal carcinoma	primary	BRCA1	homozygous	c.5251C>T	p.R1751*
						CDKN2A	homozygous	c.1_471del471	p.0?
						PTEN	homozygous	c.635_1212del578	p.N212fs*1
				TP53	homozygous	c.524G>A	p.R175H		

¹ Described in [J Clin Invest \(2011\) 121\(7\):2750-2767](#).

² These subtypes are classified as: (1) Basal-like, including subtypes BL1 (basal-like 1), BL2 (basal-like 2) and IM (immunomodulatory); (2) Mesenchymal-like, including subtypes M (mesenchymal) and MSL (mesenchymal stem-like); and, (3) LAR (luminal androgen receptor) with an LAR subtype.