

# CELL PANEL

## BREAST CANCER BIOMARKERS CELL LINE PANEL 1

The Breast Cancer Biomarkers Cell Line Panel 1 (ATCC® TCP-1004™) comprises 7 tumor cell lines isolated from a variety of primary and metastatic sites, and annotated with pre-operative chemotherapy treatments and published positive and negative biomarkers. The table below provides more information for the cell lines included in this panel.

ATCC® No.	Designation	Pathology	Site of Isolation	Age (years)	Positive Markers <sup>1,2,3</sup>	Negative Markers <sup>1,2,3,4,5,6,7</sup>	Other significant features	Patient Treatment <sup>1</sup>
<a href="#">CRL-1897™</a>	UACC-812	Infiltrating ductal carcinoma	Breast	43	HER-2/neu	ER, PR, EGFR, P-glycoprotein		Vinblastine, Adriamycin, Cytosan, Cyclophosphamide, Methotrexate, 5-fluorouracil
<a href="#">CRL-1902™</a>	UACC-893	Infiltrating ductal carcinoma	Breast	57	HER-2/neu	ER, PR, EGFR, P-glycoprotein, MASPIN	MASPIN promoter methylation has been reported for this line. <sup>5</sup>	None
<a href="#">CRL-2983™</a>	UACC-3199	Infiltrating ductal carcinoma	Axillary nodes	58	EGFR	ER, PR, HER-2/neu	Methylated BRCA-1 promoter	Cytosan, Adriamycin, 5-fluorouracil, Tamoxifen, Mitoxantrone, Vinblastine
<a href="#">CRL-2988™</a>	UACC-3133	Poorly differentiated adenocarcinoma and lobular carcinoma	Pleural fluid	63	HER-2/neu, BMP-3	ER (very low), PR, EFGR, MASPIN, DSC3, BMP-2	MASPIN promoter methylation has been reported for this line. <sup>5</sup>	Surgery only
<a href="#">CRL-3127™</a>	UACC-1179	Adenocarcinoma	Pleural fluid	62	HER-2/neu	ER, PR, EFGR, MASPIN, DSC3	p53 R213X mutation and MASPIN promoter methylation have been reported for this line. <sup>5,8</sup>	Adriamycin, Cytosan, Methotrexate, Tamoxifen
<a href="#">CRL-3166™</a>	UACC-732	Adenocarcinoma	Pleural fluid	35	HER-2/neu, PR	ER, EGFR	Drug resistant cell line to cyclin D kinase 4/6 inhibitor and HER-2 inhibitors. <sup>9</sup>	Vinblastine, Adriamycin, Cytosan
<a href="#">CRL-3180™</a>	UACC-2087	Adenocarcinoma	Pleural fluid	53	EGFR	ER, PR, HER-2/neu, vimentin, MASPIN, DSC3	p53V216M mutation has been reported in this cell line. It has also been reported that the MASPIN promoter is not methylated. <sup>5,10</sup>	Cyclophosphamide, Methotrexate, 5-fluorouracil, Thymidine phosphorylase, Tamoxifen

## REFERENCES

- 1 Robey IF, et al. Regulation of the Warburg Effect in Early-Passage Breast Cancer Cells. *Neoplasia*. 10(8):745-56, 2008. PubMed: 18670636
- 2 Alarmo EL, et al. A comprehensive expression survey of bone morphogenetic proteins in breast cancer highlights the importance of BMP4 and BMP7. *Breast Cancer Res Treat*. 103(2):239-46, 2007. PubMed: 17004110
- 3 Ketolainen JM, et al. Parallel inhibition of cell growth and induction of cell migration and invasion in breast cancer cells by bone morphogenetic protein 4. *Breast Cancer Res Treat* 124(2):377:86, 2010. PubMed:20182795
- 4 Meltzer P, et al. Establishment of two new cell lines derived from human breast carcinomas with HER-2/neu amplification. *Br. J. Cancer* 63: 727-735, 1991. PubMed:1674877
- 5 Esteller, M. *Cancer Metastasis - Biology and Treatment: DNA Methylation, Epigenetics and Metastasis*. Springer. AA Dordrecht, The Netherlands. 2005. pp.142-43.
- 6 Domann FE, et al. Epigenetic silencing of maspin gene expression in human breast cancers. *Int J Cancer*. 85(6):805-10, 2000. PubMed: 10709100
- 7 Oshiro MM, et al. Epigenetic silencing of DSC3 is a common event in human breast cancer. *Breast Cancer Res*. 7(5):R669-80, 2005. PubMed:16168112
- 8 Oshiro MM, et al. Mutant p53 and aberrant cytosine methylation cooperate to silence gene expression. *Oncogene*. 22(23):3624-34,2003. PubMed:12789271
- 9 Finn RS, et al. PD 0332991, a selective cyclin D kinase 4/6 inhibitor, preferentially inhibits proliferation of luminal estrogen receptor-positive human breast cancer cell lines in vitro. *Breast Cancer Res*. 11(5):R77, 2009. PubMed:19874578
- 10 Watts GS, et al. The acetyltransferase p300/CBP-associated factor is a p53 target gene in breast tumor cells. *Neoplasia*. 6(3): 187-94, 2004. PubMed: 151533330
- 11 Rice JC, et al. Transcriptional repression of BRCA1 by aberrant cytosine methylation, histone hypocetylation and chromatin condensation of the BRCA1 promoter. *Nucleic Acids Res*. 28(17):3233-3239, 2000. PubMed: 10954590

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CB-122021-v02

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