

## Application of Breast Cancer Cell Lines in Drug Development

The first breast cancer cell line to be established was BT-20 in 1958. However, it was another 20 years before establishing breast cancer cell lines became more widespread, including the MD Anderson series and what still remains the most commonly used breast cancer cell line MCF-7. The prevalence of MCF-7 is largely due to its sensitivity to hormone through the expression of ER, making it an ideal model to study hormone response.

Creative Bioarray has a large, well-documented library of cell lines for *in vitro* studies of breast cancer. Please **contact us** with any request for cell-based high-throughput screening. Moreover, we can order any new cell line and custom develop your assay according to your specific need.

Breast cancer is a complex and heterogeneous disease. Gene expression profiling has made a significant contribution to our understanding of this heterogeneity at a molecular level, prompting taxonomy based on simple measurements such as histological type, tumor grade, lymph node status and the presence of predictive markers like estrogen receptor (ER) and human epidermal growth factor receptor 2 (HER2) to a more sophisticated classification comprising luminal A, luminal B, basal-like, HER2-positive and normal subgroups. In the laboratory, breast cancer is often modeled using established cell lines. One of the major benefits of using cultured cell lines in cancer research is that they provide an infinite supply of a relatively homogeneous cell population that is capable of self-replication in standard cell culture medium.

### Human Breast Cancer Cell Lines Available for *In Vitro* Screening

AU565 human breast adenocarcinoma cells	HCC1419 human breast cancer cells	KPL1 human breast cancer cells	MDAMB436 human breast carcinoma cells
BT20 human breast carcinoma cells	HCC1428 human breast adenocarcinoma cells	KPL3C human breast cancer cells	MDAMB453 human breast carcinoma cells
BT474 human breast ductal carcinoma cells	HCC1500 human breast ductal carcinoma cells	KPL4 human breast cancer cells	MDAMB468 human breast carcinoma cells
BT549 human breast carcinoma cells	HCC1569 human breast cancer cells	L226 human breast cancer cells	MFM223 human breast carcinoma cells
CAL148 human breast adenocarcinoma cells	HCC1599 human breast cancer cells	L56Br-C1 human breast cancer cells	MT3 human breast cancer cells
CAL51 human breast cancer cells	HCC1806 human breast cancer cells	LCC6 human breast cancer cells	MX1 human breast cancer cells
CAMA1 human breast adenocarcinoma cells	HCC1937 human breast cancer cells	LCC9 human breast cancer cells	SKBr3 human breast adenocarcinoma cells
COLO824 human breast carcinoma cells	HCC1954 human breast ductal carcinoma cells	MCF7 human breast adenocarcinoma cells	SUM1315 human breast cancer cells
DU4475 human epithelial breast carcinoma cells	HCC202 human breast ductal carcinoma cells	MCF10 human breast ductal carcinoma cells	SUM149 human breast cancer cells
EFM19 human breast ductal carcinoma cells	HCC2218 human breast ductal carcinoma cells	MDAMB134 human breast ductal carcinoma cells	SUM159 human breast cancer cells
EFM192A human breast carcinoma cells	HCC38 human breast cancer cells	MDAMB157 human epithelial breast carcinoma cells	SUM190 human breast cancer cells
EVSAT human breast cancer cells	HCC70 human breast ductal carcinoma cells	MDAMB175 human epithelial breast cancer cells	T47D human breast ductal carcinoma cells
HBL 100 human breast cancer cells	HDQ-P1 human breast cancer cells	MDAMB231 human breast adenocarcinoma cells	UACC812 human breast ductal carcinoma cells
HCC1143 human breast cancer cells	Hs578T human breast carcinoma cells	MDAMB361 human breast carcinoma cells	UACC893 human breast ductal carcinoma cells
HCC1187 human breast ductal carcinoma cells	JIMT1 human breast carcinoma cells	MDAMB415 human breast adenocarcinoma cells	ZR75-1 human breast ductal carcinoma cells
HCC1395 human breast ductal carcinoma cells			ZR75-30 human breast ductal carcinoma cells

### Some of the active areas of breast cancer research include:

- ◆ Breast cancer causes
- ◆ Reducing breast cancer risk
- ◆ Tests for circulating tumor cells (CTCs)
- ◆ Breast cancer treatment
- ◆ Causes and treatment of metastatic breast cancer
- ◆ Managing ductal carcinoma in situ (DCIS)
- ◆ Scintimammography (molecular breast imaging)
- ◆ Supportive care