# MCF7A estrogen independent breast cancer cell line panel

**Catalogue number:** 154646
**Sub-type:** Continuous
**Images:**

## Contributor

**Inventor:**
**Institute:** Erasmus University Medical Center (Erasmus MC)
**Images:**

## Tool details

***FOR RESEARCH USE ONLY**

**Name:** MCF7A estrogen independent breast cancer cell line panel

**Alternate name:**



**Class:**
**Conjugate:**
**Description:** Endocrine therapy of breast cancer has been applied widely and proven to be effective. However, in many instances endocrine treatments ultimately fail due to the development of an estrogen-independent therapy resistant phenotype. To elucidate the molecular mechanism underlying this endocrine therapy failure, the laboratory of Lambert Dorssers applied different genetic screens to identify the main genes conferring estrogen independence. Out of 15 candidate BCAR genes, several including BCAR3, BCAR4 and AKT1 were shown to directly underlie estrogen independence to MCF7A breast cancer cells. These genes were transfected into the MCF7A breast cancer cell line resulting in a panel of 4 cell lines (Cat No 154636-154638, 154643). These cell lines are a powerful tool for studying the molecular and cellular mechanisms of breast tumour progression, therapy resistance and to test the effectiveness of novel drugs to combat different modes of anti-estrogen insensitivity
**Purpose:**
**Parental cell:** MCF7A
**Organism:** Human
**Tissue:** Breast
**Model:** Cancer Model
**Gender:**
**Isotype:**
**Reactivity:**
**Selectivity:**

**Host:**
**Immunogen:**
**Immunogen UNIPROT ID:**
**Sequence:**
**Growth properties:**
**Production details:** Full length cDNA of the relevant gene was introduced in the estrogen-dependant MCF7A cell line by transfection with lipofectamine
**Formulation:**
**Recommended controls:**
**Bacterial resistance:**
**Selectable markers:**
**Additional notes:**

## Target details

**Target:** BCAR3, BCAR4, AKT1

**Target alternate names:**

**Target background:**

**Molecular weight:**

**Ic50:**



## Applications

**Application:**
**Application notes:** The cell lines are also resistant to Geneticin which may be included in the culture to maintain the expression plasmid

## Handling

**Format:** Frozen
**Concentration:**
**Passage number:**
**Growth medium:** RPMI 1640 medium supplemented with 10% heat-inactivated fetal calf serum (FCS)
**Temperature:**
**Atmosphere:**
**Volume:**
**Storage medium:**
**Storage buffer:**
**Storage conditions:**
**Shipping conditions:** Dry ice

## Related tools

**Related tools:**

## References



**References:** Godinho et al. 2011. J Cell Physiol. 226(7):1741-9. PMID: 21506106. ; van Agthoven et al. 2010. Endocr Relat Cancer. 17(1):215-30. PMID: 19966015. ; van Agthoven et al. 2009. Breast Cancer Res Treat. 114(1):23-30. PMID: 18351453. ; Meijer et al. 2006. Mol Cancer Res. 4(6):379-86. PMID: 16778085. ; Brinkman et al. 2000. J Natl Cancer Inst. 92(2):112-20. PMID: 10639512. ; van Agthoven et al. 1998. EMBO J. 17(10):2799-808. PMID: 9582273. ; van Agthoven et al. 1992. Cancer Res. 52(18):5082-8. PMID: 1516065.