

# MCF10A-PTENm-5 cell line

**Catalogue number:** 161208

**Sub-type:** Continuous

**Images:**

## Contributor

**Inventor:** Medical-Industrial Translational Research Center

**Institute:** Fukushima Medical University

**Images:**

## Tool details

**\*FOR RESEARCH USE ONLY**

**Name:** MCF10A-PTENm-5 cell line

**Alternate name:** 06M17013

**Class:**

**Conjugate:**

**Description:** Non-tumorigenic immortalized breast epithelial cell stably overexpressing mutant cancer-related gene, PTEN (phosphatase and tensin homolog). PTEN is a multi-functional tumor suppressor that is mutated and lost in a large number of cancers at high frequency. Observed in prostate cancer, glioblastoma, endometrial, lung and breast cancer to varying degrees. Up to 70% of prostate cancer patients have been observed to have loss of expression of the gene. It is a part of the PI3K/AKT/mTOR pathway and mTOR inhibitors have been relatively ineffective in treating patients with PTEN loss.

**Purpose:**

**Parental cell:** MCF10A, a non-tumorigenic cell line from human mammarygland epithelium

**Organism:** Human

**Tissue:** Mammarygland epithelium

**Model:** Mutant

**Gender:**

**Isotype:**

**Reactivity:**

**Selectivity:**

**Host:**

**Immunogen:**

**Immunogen UNIPROT ID:**

**Sequence:**

**Growth properties:** Adherent

**Production details:**

**Formulation:**  
**Recommended controls:**  
**Bacterial resistance:**  
**Selectable markers:**  
**Additional notes:**

## Target details

**Target:** Phosphatase and tensin homolog [PTEN]

**Target alternate names:**

**Target background:** Gene ID: 5728; References: DNA (mRNA): NM\_000314.6; Protein: NP\_000305.3

**Molecular weight:**

**Ic50:**

## Applications

**Application:** Functional analysis of mutated genes, Drug screening

**Application notes:**

## Handling

**Format:** Frozen

**Concentration:**

**Passage number:**

**Growth medium:** DMEM/Ham's F-12 supplemented with 5% heat-inactivated horse serum, 10  $\mu$ g/ml insulin (human, recombinant), 5  $\mu$ M forskolin, 0.5  $\mu$ g/ml hydrocortisone, 20 ng/ml EGF (human, recombinant), 100 U/ml penicillin, and 100  $\mu$ g/ml streptomycin

**Temperature:** 37° C

**Atmosphere:** Humidified incubator with 5%  $\text{CO}_2$

**Volume:**

**Storage medium:** CELLBANKER 2 (Zenogen pharma)

**Storage buffer:**

**Storage conditions:** Liquid Nitrogen

**Shipping conditions:** Dry ice

## Related tools

**Related tools:**

# References

References:

CancerTools.org