

# MCF10A-ERRB2m-12 cell line

**Catalogue number:** 161201

**Tool type:**

## Contributor

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

**Institute:** Fukushima Medical University

**Images:**

## Tool details

**\*FOR RESEARCH USE ONLY**

**Name:** MCF10A-ERRB2m-12 cell line

**Alternate name:** 06M15014

**Class:**

**Conjugate:**

**Description:** Non-tumorigenic immortalized breast epithelial cell stably overexpressing mutant cancer-related gene, ERBB2 (erb-B2 Receptor Tyrosine Kinase 2). ERBB2 is a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. This protein bind tightly to other ligand-bound EGF receptor family members to form a heterodimer, stabilizing ligand binding and enhancing kinase-mediated activation of downstream signalling pathways. Allelic variations at amino acid positions 654 and 655 of isoform a (positions 624 and 625 of isoform b) have been reported, with the most common allele, Ile654/Ile655. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors.

**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:**

## Patient details

**Cancer subtype:**  
**Cancer stage/grade:**  
**Biopsy site:**  
**Patient ethnicity:**  
**Treatment history:**

## Engraftment details

**Mice passaged?:**  
**Engraftment site:**  
**Sample type:**  
**Host strain:**  
**Histology:**  
**Genetic data:**

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## Target details

**Target:** Erb-b2 receptor tyrosine kinase 2 [ERBB2]  
**Target alternate names:**  
**Target background:** Gene ID: 2064; References: DNA (mRNA): NM\_004448.3; Protein: NP\_004439.2  
**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 µg/ml insulin (human, recombinant), 5 nM forskolin, 0.5 µg/ml hydrocortisone, 20 ng/ml EGF (human,

recombinant), 100 U/ml penicillin, and 100 µg/ml streptomycin

**Temperature:** 37° C

**Atmosphere:** Humidified incubator with 5% CO<sub>2</sub>

**Volume:**

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

**Storage buffer:**

**Storage conditions:** Liquid Nitrogen

**Shipping conditions:** Dry ice

## Related tools

**Related tools:**

## References

**References:** Irie et al. Mol Cancer Ther. 2019 Apr, 18(4):733-742. PMID: 30787176

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