

# ERBB2 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01927

## Basic Information

**Catalog No.**

RM01927

**Category**

Cell Line

**Parental Cell line**

HeLa

**Genotype**

Knockout

## Gene Information

**Gene Symbol**

ERBB2

**Species**

Human

**Gene ID**

2064

**Swiss Prot**

P04626

**Synonyms**

CD340; HER-2; HER-2/neu; HER2; MLN19; NEU; NGL; TKR1

## Contact

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## Background

This gene encodes a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. This protein has no ligand binding domain of its own and therefore cannot bind growth factors. However, it does 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, such as those involving mitogen-activated protein kinase and phosphatidylinositol-3 kinase. 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, shown here. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors. Alternative splicing results in several additional transcript variants, some encoding different isoforms and others that have not been fully characterized. [provided by RefSeq, Jul 2008]

## Product Information

**Description**

ERBB2 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:1bp insertion in exon2

Allele-2:47bp deletion in exon2

Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles.

Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins.

Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

**Packaging**

1 vial parental cell line and 1 vial knockout cell line

**Shipping Conditions**

Dry ice

**Amount**

1~5x10<sup>6</sup> cells/vial

**Storage**

Stored in liquid nitrogen for a long time less than -130°C. Minimizing freeze-thaw cycles.

**Protocol**

Upon arrival, it should be maintained in DMEM medium with 10%(v/v) fetal bovine serum and 100U penicillin-streptomycin, at 37°C with 5% CO<sub>2</sub> condition.

1. Thaw the vial in 37°C water bath, and shake it to melt as soon as possible.
2. Transfer the cell suspension to a 15mL conical tube with pre-warmed 5mL complete medium and centrifuge 1000rpm for approximately 5 minutes at room temperature.
3. Remove and discard the supernatant.
4. Resuspend the cell pellet with 1mL pre-warmed complete medium and seed in 10cm dish.
5. Add 8-10mL of complete medium.
6. Incubate the culture at 37°C incubator with 5% CO<sub>2</sub>.
7. A subcultivation ratio of 1:2-1:4 is recommended.

## Sequencing data

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WT GCAGAGGCTGCGGATTGT-GCGAGGCACCCAGCTCTTT  
Mut GCAGAGGCTGCGGATTGTGCGAGGCACCCAGCTCTTT  
Allele-1: 1bp insertion in exon2  
WT CTGCAGAGGCTGCG\*\*\*\*\*TGCTAGACAATGGA  
Mut CTGCAGAGGCTGCG\*\*\*Deletion\*\*\*TGCTAGACAATGGA  
Allele-2: 47bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and ERBB2 knockout (KO) HeLa cells, using sanger sequencing.