

## Human Recombinant ERBB2 Stable Cell Line

Cat. No.: FCC-115

### ■ Introduction

Cell Line Name:	CHO-K1/ERBB2
Gene Synonyms:	NEU; NGL; HER2; TKR1; CD340; HER-2; VSCN2; MLN 19; HER-2/neu
Expressed Gene:	ERBB2
Host Cell:	CHO-K1, (ATCC® CCL-61™)
Quantity:	Two vials of frozen cells (>1×10 <sup>6</sup> cells/vial)
Application:	Binding assay or use as immunogen
Cryopreservation Medium:	70% Complete growth medium, 20% FBS, 10% (V/V) DMSO
Complete Growth Medium:	F12K, 10% FBS
Drug Screening:	12 µg/ml Puromycin
Mycoplasma Contamination:	Not detected
Storage:	Liquid nitrogen immediately upon receipt

### ■ 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.

■ **Representative Data**

Protein Expression Validation

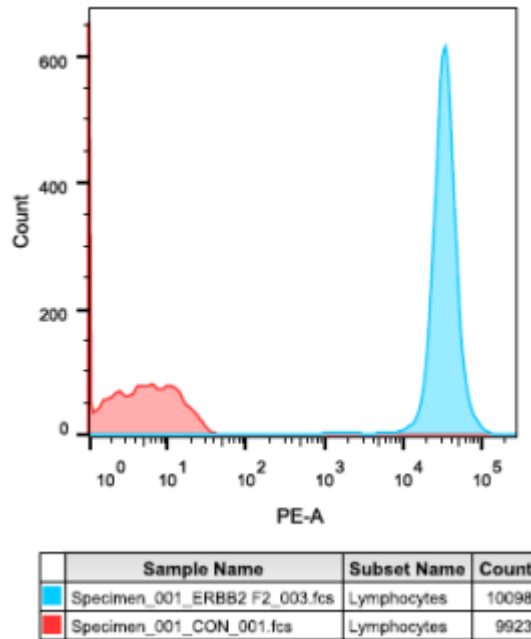


Figure 1: FACS analysis of ERBB2 expression in CHO-K1/ ERBB2 cells

■ **Cell Culture Procedure**

**1. Complete Growth Medium**

The base medium for this cell line is ATCC-formulated F-12K Medium, Catalog No. 30-2004. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

**2. Subculturing**

- 1) Remove and discard culture medium.
- 2) Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
- 3) Add 2.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 2 to 5 minutes). **Note:** To avoid clumping do not agitate the cells

by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.

- 4) Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
- 5) Add appropriate aliquots of the cell suspension to new culture vessels.
- 6) Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:3 to 1:5 is recommended.

**Medium Renewal:** Once or twice between subculture.

### 3. Cryopreservation

Freeze medium: 70% Complete growth medium, 20% FBS, 10% (V/V) DMSO

Storage temperature: liquid nitrogen vapor phase

### 4. Culture Conditions

Temperature: 37°C,

CO<sub>2</sub> : 5%

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