

## DESCRIPTION

<b>Cell Line Name</b>	Human epidermal growth factor receptor (EGFR)-CHO-K1 stable cell line (HuEGFR-CHO-K1)
<b>Catalog Number</b>	C3004
<b>Gene Sequence</b>	NM_005228.5
<b>Host Cell</b>	Adherent CHO-K1
<b>Quantity</b>	Two vials of frozen cells ( $2 \times 10^6$ per vial)
<b>Culture Medium</b>	DMEM with 10% FBS, 1 $\mu$ g/ml puromycin
<b>Freezing Medium</b>	90% FBS and 10% DMSO
<b>Storage</b>	Liquid nitrogen

## BACKGROUND

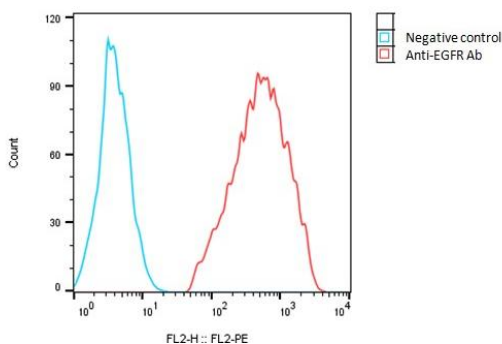
Epidermal growth factor receptor (EGFR), also known as ErbB-1, is a transmembrane receptor protein that belongs to the receptor tyrosine kinase family. It is encoded by the EGFR gene and is expressed in various tissues, including the epithelial cells of the skin, lung, gastrointestinal tract, and brain. EGFR is involved in several cellular processes, including cell growth, proliferation, differentiation, and survival, through activation of downstream signaling pathways such as the MAPK/ERK and PI3K/Akt pathways. However, dysregulation of EGFR signaling has been linked to cancer development and progression in various cancers, including non-small cell lung, head and neck, colorectal, and pancreatic cancers. Therefore, EGFR has become an attractive therapeutic target in oncology. Small molecular inhibitors, such as gefitinib, erlotinib, and afatinib, and monoclonal antibodies, such as cetuximab and panitumumab, have been developed to target EGFR for the treatment of various cancers, particularly in patients with EGFR mutations or overexpression.

## THAWING AND CULTURING

- Remove the cell vial from liquid nitrogen tank and thaw cells quickly in a 37°C water bath
- Transfer the cells to a 15 ml centrifuge tube and slowly add 5 ml of pre-warmed complete growth medium
- Centrifuge the cells at 200x g for 5 min
- Remove the supernatant
- Resuspend cell pellet with 7 ml of complete growth medium and transfer cells to a T25 flask
- Incubate cells in an incubator with 5% CO<sub>2</sub> at 37°C
- Split the cells twice a week or as needed.

## DATA

Detection of human EGFR expression on human EGFR-CHO-K1 stable cells using a monoclonal antibody specific for human EGFR (R&D Systems, Cat. #FAB9577P)



## REFERENCES

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- Nakamura J.L. *Expert Opinion on Therapeutic Targets*. **11** (4): 463–72, 2007.

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