

DESCRIPTION

Cell Line Name	Human epidermal growth factor receptor (EGFR)-B16.F1 stable cell line (HuEGFR-B16.F1)
Catalog Number	C3042
Accession Number	X00588.1
Host Cell	B16-F1, murine skin melanoma cells
Quantity	Two vials of frozen cells (2x10 ⁶ per vial)
Culture Medium	DMEM with 10% FBS, 2 µg/ml puromycin
Freezing Medium	90% FBS and 10% DMSO
Storage	Liquid nitrogen

BACKGROUND

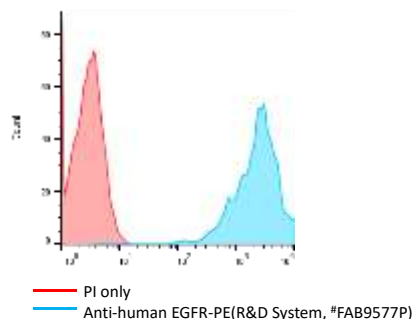
Epidermal growth factor receptor (EGFR) is a type I transmembrane glycoprotein and member of the receptor protein kinase superfamily. EGFR, along with its ligands, play critical roles in a wide variety of cellular functions, including cell proliferation, differentiation, motility and survival. Ligands for EGFR include EGF, TGF- α , amphiregulin, betacellulin, heparin-binding EGF-like growth factor, GP30 and vaccinia virus growth factor (1). The full length human EGFR contains 1186 amino acid (aa) residue with a 621 aa extracellular domain, a 23 aa transmembrane domain, and a 542 aa cytoplasmic domain (2). Ligand binding induces EGFR homo and hetero-dimerization, resulting in kinase activation, tyrosine phosphorylation and cell signaling (3). EGFR signaling is known to induce the MAPK, Akt, and JNK signaling pathways (4). EGFR is expressed by many types of epithelial and endothelial cells and frequently upregulated in many types of cancers (5).

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% CO₂ at 37°C
- Split the cells twice a week or as needed.

DATA

Detection of human EGFR expression on human EGFR-B16.F1 stable cells using a monoclonal antibody specific for human EGFR (R&D Systems, Cat #FAB9577P)


REFERENCES

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2. Ullrich, A. *et al.* (1984) *Nature* **309**:418.
3. Schlessinger, J. (2000) *Cell*. **103**:211.
4. Maihle, N.J. *et al.* (2002) *Cancer Treat. Res.* **107**:247.
5. Roskoski Jr., R. (2004) *Biochem. Biophys. Res. Commun.* **319**:1.

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