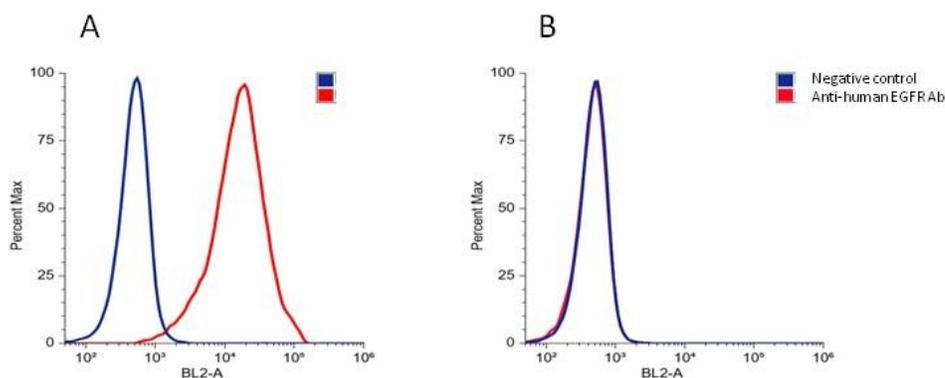


SPECIFICATIONS

Catalog Number	C3106
Cell Line Name	Human EGFR-EMT6 stable cell line
Accession Number	X00588.1
Host Cell	EMT6
Quantity	Two vials of frozen cells (2x10 ⁶ per vial)
Culture Medium	DMEM with 10% FBS, 4 µg/ml puromycin
Freezing Medium	90% FBS and 10% DMSO
Storage	Liquid nitrogen

DATA

Detection of human EGFR expression on human EGFR-EMT6 stable cells (A) or the parental EMT6 cells (B) by flow cytometry using PE-anti-HuEGFR Ab (Cetuximab, R&D Systems, FAB9577P).


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.

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.

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References

Carpenter G. *Annual Review of Biochemistry*. **56**: 881–914, 1987.

Pai, R., Soreghan, B., Szabo, I. L., Pavelka, M., Baatar, D., Tarnawski, A. S. *Nature Med.* **8**: 289-293, 2002.

Reynolds, F. H., Jr., Todaro, G. J., Fryling, C., Stephenson, J. R. *Nature*. **292**: 259-262, 1981.

Pao, W., Miller, V., Zakowski, M., Doherty, J., Politi, K., Sarkaria, I., Singh, B., Heelan, R., Rusch, V., Fulton, L., Mardis, E., Kupfer, D., Wilson, R., Kris, M., Varmus, H. *Proc. Nat. Acad. Sci.* **101**: 13306-13311, 2004.

Nakamura JL. *Expert Opinion on Therapeutic Targets*. **11**: 463–72, 2007.

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