## Mouse EGFR-CHO-K1 Stable Cell Line

### **SPECIFICATIONS**

Cell Line Name Mouse EGFR-CHO-K1 stable cell line

Accession Number NM\_207655.2 Host Cell Adherent CHO-K1

 Quantity
 Two vials of frozen cells (2x10<sup>6</sup> per vial)

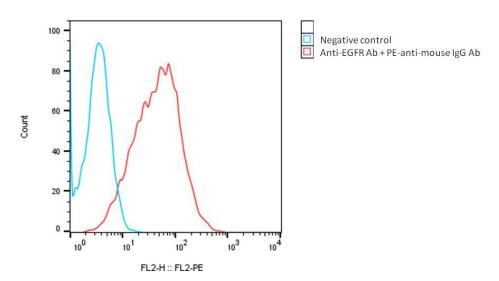
 Culture Medium
 DMEM with 10% FBS, 4 μg/ml puromycin

Freezing Medium 90% FBS and 10% DMSO

Storage Liquid nitrogen

### DATA

Detection of mouse EGFR expression on mouse EGFR-CHO-K1 stable cells using the anti-EGFR antibody (Thermo Fisher, Cat. #MA513070), followed by staining with PE-anti-mouse IgG antibody.



# 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.

#### 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 (4): 463–72, 2007.

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