

Recombinant EGFR protein (672-1210, L858R) protein

Catalog No: 81200

Lot No: 20518001

Expressed In: Baculovirus

Quantity: 20 µg

Concentration: 0.2 µg/µl

Source: Human

Buffer Contents: Recombinant EGFR (672-1210, L858R) protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5 mM TCEP.

Background: EGFR (Epidermal Growth Factor Receptor), also known as ERBB, mENA, ERBB1 and HER1, is the receptor for members of the EGF family and is a transmembrane glycoprotein that has tyrosine kinase activity. Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses. Known ligands include EGF, TGF α /TGF- α , AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF. Ligand binding triggers receptor homoand/or heterodimerization and autophosphorylation on key cytoplasmic residues. The phosphorylated receptor recruits adapter proteins like GRB2 which in turn activates complex downstream signaling cascades, including at least 4 major downstream signaling cascades: the RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLC γ -PKC and STATs modules, leading to cell proliferation.

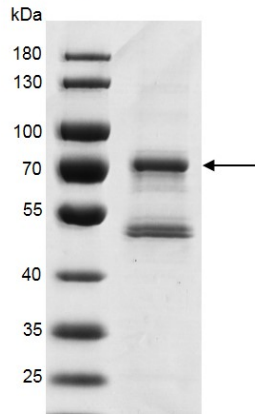
EGFR is widely recognized for its importance in cancer. Amplification and mutations of this gene have been shown to be driving events in many cancer types. Its role in non-small cell lung cancer, glioblastoma and basal-like breast cancers has spurred many research and drug development efforts. In particular, EGFR mutation analysis of NSCLC (non-small cell lung cancer) is now routine in standard clinical practice, and tyrosine kinase inhibitors (TKIs) targeting EGFR-activating mutations are the most widely used targeted therapy, most notably gefitinib and erlotinib. Patients carrying a point mutation in exon 21 (L858R) or a deletion in exon 19, which account for approximately 90% of EGFR-activating mutations, have significant survival benefit when treated with EGFR-TKI.

Protein Details: Recombinant human EGFR (672-1210, L858R) protein that includes amino acids 672-1210 of human EGFR protein (accession number NP_005219.2) with a point mutation Leu858Arg, was expressed in baculovirus expression system with an N-terminal FLAG-Tag. The molecular weight of this protein is 63.1 kDa.

Application Notes: Recombinant human EGFR (672-1210, L858R) protein is suitable for use in enzyme kinetics, inhibitor screening, and selectivity profiling.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

EGFR (672-1210, L858R)



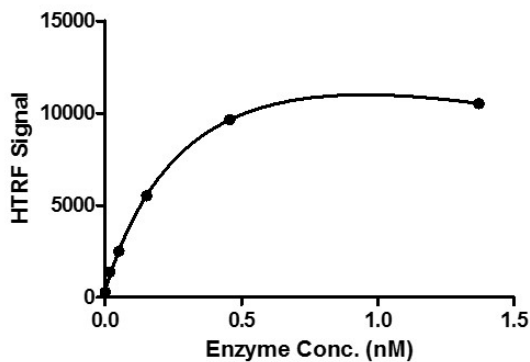
Recombinant EGFR (672-1210, L858R) protein

10% SDS-PAGE Coomassie staining

MW: 63.1 kDa

Purity: >52%

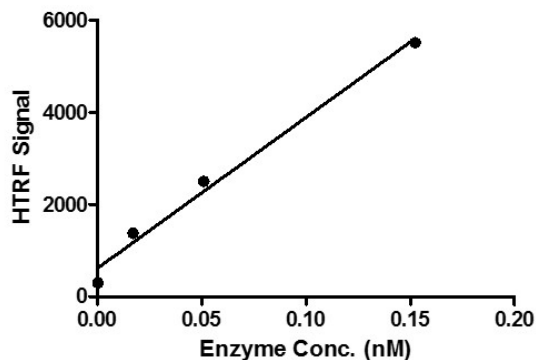
EGFR (672-1210, L858R) Titration



HTRF assay for EGFR (672-1210, L858R) protein activity

1 micro;M TK substrate was incubated with different concentrations of EGFR (672-1210, L858R) protein in a 10 μ l reaction system containing 1 \times Enzymatic Buffer, 5 mM MgCl₂, 1 mM DTT, 5 nM SEB and 100 μ M ATP for 1 hour. Then 10 μ l detection reagents containing TK antibody and SA-XL665 (each of which was 1:100 diluted with 1 \times Detection Buffer) were added and incubated with the reactions for 30 min. All the operations and reactions were performed at room temperature. HTRF KinEASE TK assay was used to detect the enzymatic activity.

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