Data Sheet (Cat.No.TMPY-04529)

TargetMol

EGFR Protein, Human, Recombinant (aa 668-1210, His & GST)

General Information

Synonyms:	epidermal growth factor receptor;PIG61;ERBB1;NISBD2;ERBB;HER1;mENA
Protein Construction:	A DNA sequence encoding the cytoplasmic domain (Met 668-Ala 1210) of human EGFR (NP_005219) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	P00533-1
Molecular Weight:	89.1 kDa (predicted)

QC Testing

Biological Activity:	1. The specific activity was determined to be > 70 nmol/min/mg using Poly(Glu:Tyr) 4:1 as substrate. 2. Immobilized EGF Protein, Human, Recombinant (ECD, hFc Tag) at 2 μg/mL (100 μL/well) can bind EGFR Protein, Human, Recombinant (aa 668-1210, His & GST Tag)in functional ELISA.
Purity:	> 75 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Supplied as sterile 20 mM Tris, 500 mM NaCl, 10% glycerol, pH 7.4.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

As a member of the epidermal growth factor receptor (EGFR) family, EGFR protein is type I transmembrane glycoprotein that binds a subset of EGF family ligands including EGF, amphiregulin, TGF-α, betacellulin, etc. EGFR protein plays a crucial role in signaling pathway in the regulation of cell proliferation, survival and differentiation. Binding of a ligand induces EGFR protein homo- or heterodimerization, the subsequent tyrosine

autophosphorylation and initiates various down stream pathways (MAPK, PI3K/PKB and STAT). In addition, EGFR signaling also has been shown to exert action on carcinogenesis and disease progression, and thus EGFR protein is proposed as a target for cancer therapy currently.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

Reference

Schlessinger, J. (2000) Cell signaling by receptor tyrosine kinases. Cell 103(2): 211-25.
Giaccone, G. (2005) HER1/EGFR-targeted agents: predicting the future for patients with unpredictable outcomes to therapy. Ann. Oncol. 16(4): 538-48.
Yarden, Y.,et al.(2001) Untangling the ErbB signalling network. Nat. Rev. Mol. Cell. Biol. 2(2): 127-37.