

# Recombinant Human Epidermal Growth Factor Receptor

## / EGFR / ErbB1 / HER1 (C-6His)

**MESGEN**  
INNOVATION BIOTECHNOLOGY

Cat.No. MGR9170

Lot.No. Refer to Vial

Packaging: 10 $\mu$ g \ 50 $\mu$ g \ 500 $\mu$ g \ 1mg



### Description

Recombinant Human EGFR is produced by our Mammalian expression system and the target gene encoding Leu25-Ser645 is expressed with a 6His tag at the C-terminus. The EGFR subfamily of receptor tyrosine kinases is composed of EGFR, ErbB2, ErbB3 and ErbB4. The EGFR shares 43% - 44% aa sequence identity with the ECD of human EGFR subfamily. All these family members are type I transmembrane glycoproteins with an extracellular ligand binding domain. The extracellular ligand binding domain is containing two cysteine-rich domains separated by a spacer region and a cytoplasmic domain containing a membrane-proximal tyrosine kinase domain. Ligand binding could induce EGFR homodimerization and heterodimerization with ErbB2, resulting in cell signaling, heterodimerization tyrosine phosphorylation and kinase activation. It can bind EGF, amphiregulin, TGF- $\alpha$ , betacellulin, epiregulin, HB-EGF, epigen, and so on. Its signaling regulates multiple biological functions including cell proliferation, differentiation, motility, and apoptosis. EGFR can also be recruited to form heterodimers with the ligand-activated ErbB3 or ErbB4. EGFR is overexpressed in different tumors. Several anti-cancer drugs use EGFR as target.

### Amino acid sequence

LEEKKVCQGTSNKLTQLGTFEDHFLSLQRMFNNCEVVLGNLEITYVQRNYDLSFLKTIQEAVAGYV  
LIALNTVERIPLLENLQIIRGNMYEYENSALAVLSNYDANKTGLKELPMRNLQEILHGAVRFSNNPAL  
CNVESIQWRDIVSSDFLSNMSMDFQNH LGSCQKCDPSCPNGSCWGAGEENCQKLTKIICAQQCSG  
RCRGKSPSDCCHNQCAAGCTGPRESCLVCRKFRDEATCKDTCPLMLYNPTTYQMDVNPEGKY  
SFGATCVKKCPRNYVVTDHGSCVRACGADSYEMEEDGVRKCKKCEGPCRKVCNGIGIGEFKDSL  
SINATNIKHFKNCTSSISGDLHILPVAFRGDSFTHTPPLDPQELDILKTVKEITGFLLIQAWPENRTDL  
HAFENLEIIRGR TKQH GQFSLAVVSLNITSLGLRSLKEISDGDVIISGNKNLCYANTINWKKLFGTS  
GQKTKIISNRGENSCKATGQVCHALCSPEGCWGPEPRDCVSCRNVSRGRECVDKCNLLEGEPRF  
VENSECIQCHPECLPQAMNITCTGRGPDNCIQCAHYIDGPHCVKTCPAGVMGENNTLVWK  
YADAGHVCHLCHPNCTY GCTGPGLEGCP TNGPKIPSVDH HHHHHH

### Endotoxin

Less than 0.1 ng/ $\mu$ g (1 IEU/ $\mu$ g) as determined by LAL test.

### Origin

Human Cells

### Quality control

Greater than 95% as determined by reducing SDS-PAGE.

### Formulation

Lyophilized from a 0.2  $\mu$ M filtered solution of PBS, pH7.4

### **Dissolution**

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Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in 1X PBS. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

### **Store condition**

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Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks.

Reconstituted protein solution can be stored at 4-7°C for 2-7 days.

Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**For Research Use Only. Not for use in diagnostic procedures.**