

DATASHEET

Version 20181206

EGF Fc Chimera, Human

Cat. No.: Z03377-1

Size: 1.0 mg

Synonyms: EGF Fc Chimera, Human

Description:

Epidermal Growth Factor (EGF) is a potent growth factor that stimulates the proliferation of various epidermal and epithelial cells. Additionally, EGF has been shown to inhibit gastric secretion, and to be involved in wound healing. EGF signals through the EGF receptor (EGFR) also known as erbB1, is a class I tyrosine kinase receptor. This receptor also binds with TGF- α and VGF (vaccinia virus growth factor). EGF-receptor binding results in cellular proliferation, differentiation, and survival. EGF is a low-molecular-weight polypeptide first purified from the mouse submandibular gland, but since then found in many human tissues including submandibular gland, parotid gland. Salivary EGF, which seems also regulated by dietary inorganic iodine, also plays an important physiological role in the maintenance of oroesophageal and gastric tissue integrity. The biological effects of salivary EGF include healing of oral and gastroesophageal ulcers, inhibition of gastric acid secretion, stimulation of DNA synthesis as well as mucosal protection from intraluminal injurious factors such as gastric acid, bile acids, pepsin, and trypsin and to physical, chemical and bacterial agents.

Recombinant Human EGF Fc Chimera produced in CHO cells is a polypeptide chain containing 286 amino acids with the C-terminal human IgG1 Fc fragment. A fully biologically active molecule, rhEGF has a molecular mass of 33-37 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 NSDSECLSH DGYCLHDGVC MYIEALDKYA CNCVVG YIGE
00041 RCQYRDLKWW ELRIEGRMDD KTHTCPPCPA PELLGGPSVF
00081 LFPPKPKDTL MISRTPEVTC VVVDVSHEDP EVKFNWYVDG
00121 VEVHNAKTKP REEQYNSTYR VVSVLTVLHQ DWLNGKEYKC
00161 KVSNAKALPAP IEKTISKAKG QPREPQVYTL PPSREEMTKN
00201 QVSLTCLVKG FYPSDIAVEW ESNGQPENNY KTTTPVLDS
00241 GSFFLYSKLT VDKSRWQQGN VFSCSVMEHA LHNHYTQKSL
00281 SLSPGK
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Source: CHO

Biological Activity: ED₅₀ < 1 ng/ml, measured in a cell proliferation assay using Balb/3T3 cells.

Molecular Weight: 33-37 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized from a 0.2 μ m filtered solution in PBS.

Reconstitution: Reconstituted in ddH₂O or PBS at 100 μ g/ml.

Purity: > 95% as analyzed by reducing SDS-PAGE.

Endotoxin Level: < 0.2 EU/ μ g, determined by LAL method.

Storage: Lyophilized recombinant Human EGF Fc Chimera remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human EGF should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.