Rev04
Update: Apr,20,2022

DATASHEET

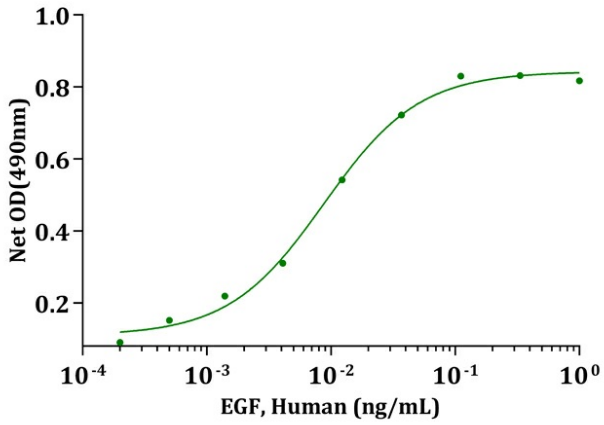
EGF, Human

Cat. No.: Z00333

Product Introduction

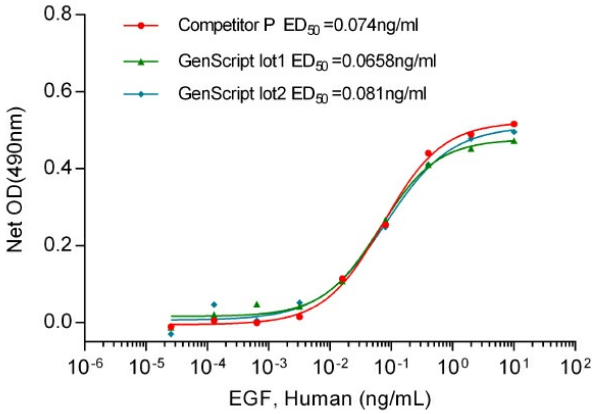
Species	Human
Protein Construction	Expressed with an N-terminal Met. **EGF (Asn971-Arg1023) Accession # P01133**
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by SEC-HPLC
Endotoxin Level	< 0.2 EU/μg of protein by gel clotting method
Biological Activity	The ED_{50}, calculated by the dose-dependant proliferation of murine BALB/c 3T3 cells is less than 0.2 ng/ml, corresponding to a specific activity of 5.0×10^6 IU/ mg.
Expression System	E. coli
N-terminal Sequence Analysis	The sequence of the first fifteen N-terminal amino acids was determined and found to be Met- Asn-Ser-Asp-Ser-Glu-Cys-Pro-Leu-Ser-His-Asp-Gly-Tyr-Cys.
Apparent Molecular Weight	~6.2 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized after extensive dialysis against 10 mM phosphate buffer, pH 7.0, 200 mM NaCl buffer.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 μg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for 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.

Examples



Biological Activity

EGF, Human (Cat. No. Z00333) stimulates cell proliferation of BALB/c 3T3 cells. The ED_{50} for this effect is typically 5–100pg/mL.



GenScript product showed equal activity compared to competitor P

Background

Target Background : 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 oro-esophageal 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.

Synonyms : Urogastrone; URG; epidermal growth factor

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.

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