

Product Information

Catalog Number	KD-007
Species	Human
Protein Construction	EGF (Asn971-Arg1023), Accession # P01133
Tag	No tag
Expression System	<i>E. coli</i>
Purity	> 95% as determined by SDS-PAGE
Predicted Molecular Mass	6 kDa
SDS-PAGE	11 kDa, under reducing conditions
Endotoxin	<0.1 EU/μg of the protein by the LAL method
Biological Activity	Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells. The ED50 for this effect is <0.3 ng/mL.
Formulation	Lyophilized from a 0.22μm filtered solution in PBS
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder at 100 μg/mL in sterile deionized water
Storage & Stability	Use a manual defrost freezer and avoid repeated freeze-thaw cycles 12 months from date of receipt, at lower than -70 °C as supplied 1 week, 2 to 8 °C under sterile conditions after reconstitution 1 month, -20 to -70 °C under sterile conditions after reconstitution
Usage	Research use only

Product Data

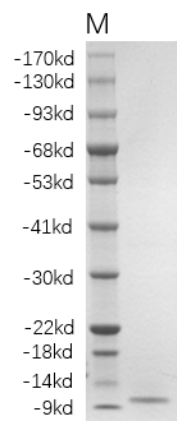


Figure 1. SDS-PAGE analysis with 2 µg recombinant human EGF per lane, under reducing conditions, showing bands at 11 kDa

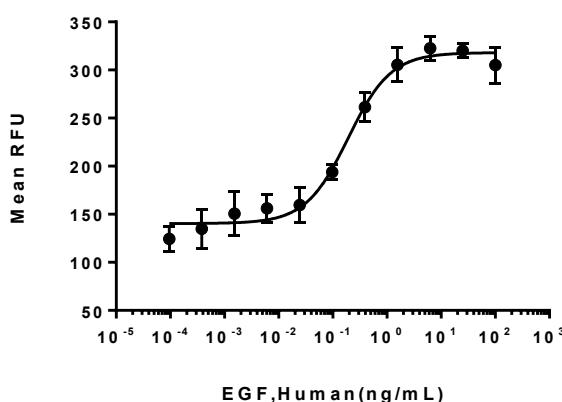


Figure 2. Biological activity measured in a cell proliferation assay using Balb/3T3 cells, ED50 for this effect is <0.3 ng/mL

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.