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EGF

Catalog # PVGS1005

Product Information

Primary Accession	P01133
Species	Human
Sequence	Asn971-Arg1023, expressed with an N-terminal Met
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by SEC-HPLC
Endotoxin Level	
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
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 □g/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.

Additional Information

Gene ID	1950
Other Names	Pro-epidermal growth factor, EGF, Epidermal growth factor, Urogastrone, EGF
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.

Protein Information

Name	EGF
Function	EGF stimulates the growth of various epidermal and epithelial tissues in vivo and in vitro and of some fibroblasts in cell culture. Magnesiotropic hormone that stimulates magnesium reabsorption in the renal distal convoluted tubule via engagement of EGFR and activation of the magnesium channel TRPM6. Can induce neurite outgrowth in motoneurons of the pond snail Lymnaea stagnalis in vitro (PubMed:10964941).
Cellular Location	Membrane; Single-pass type I membrane protein.
Tissue Location	Expressed in kidney, salivary gland, cerebrum and prostate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.