

37-1178: Mouse EGF / Epidermal Growth Factor Recombinant Protein(Discontinued)

Reactivity : Mouse

Alternative Name : AI790464 Protein, Mouse

Description

Source : Yeast

EGF is the founding member of the EGF-family of proteins. Members of this protein family have highly similar structural and functional characteristics. EGF contains 9 EGF-like domains and 9 LDL-receptor class B repeats. Human EGF is a 645-Da protein with 53 amino acid residues and three intramolecular disulfide bonds. As a low-molecular-weight polypeptide, EGF was first purified from the mouse submandibular gland, but since then it was found in many human tissues including submandibular gland, parotid gland. It can also be found in human platelets, macrophages, urine, saliva, milk, and plasma. EGF is a growth factor that stimulates the growth of various epidermal and epithelial tissues in vivo and in vitro and of some fibroblasts in cell culture. It results in cellular proliferation, differentiation, and survival. 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. EGF acts by binding with high affinity to epidermal growth factor receptor on the cell surface and stimulating the intrinsic protein-tyrosine kinase activity of the receptor. The tyrosine kinase activity, in turn, initiates a signal transduction cascade that results in a variety of biochemical changes within the cell - a rise in intracellular calcium levels, increased glycolysis and protein synthesis, and increases in the expression of certain genes including the gene for EGFR - that ultimately lead to DNA synthesis and cell proliferation.

Product Info

Amount : Mouse EGF / Epidermal Growth Factor Recombinant Protein(Discontinued) / 500 µg

Purification : > 95 % as determined by SDS-PAGE

Formulation Lyophilized from sterile PBS, pH 7.4.

Content : Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Storage condition : Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Amino Acid : Asn977-Arg1029

Application Note

Measured in a cell proliferation assay using Balb/c 3T3 mouse embryonic fibroblast cells. The ED50 for this effect is typically 30-180 pg/mL.

Other pack size also available.

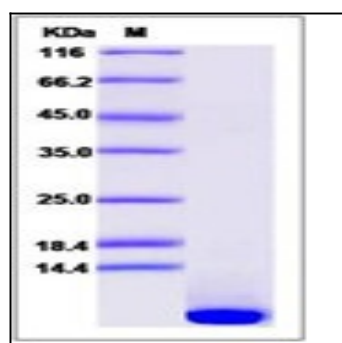


Fig 1: Mouse EGF / Epidermal Growth Factor Recombinant Protein

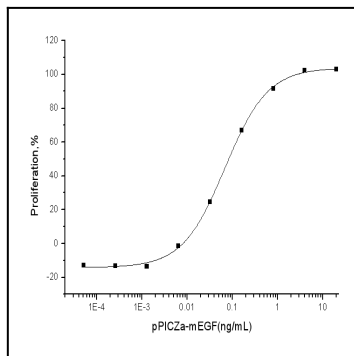


Fig 2: Mouse EGF / Epidermal Growth Factor Recombinant Protein measured in a cell proliferation assay using Balb/c 3T3 mouse embryonic fibroblast cells.