Egf
Recombinant Mouse Epidermal Growth Factor (Fc Tag)

Catalog No.	CRM626A-Fc	**Quantity:**	100 µg
	CRM626B-Fc		500 µg
	CRM626C-Fc		1.0 mg

Alternate Names: Pro-epidermal growth factor, EGF, Epidermal growth factor

Description: EGF is the founding member of the highly conserved EGF-family of proteins. 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.

UniProt ID: P01132

Accession Number: AAH60741.1

Protein Construction: A DNA sequence encoding the mature form of mouse EGF (Asn 977-Arg 1029) was fused with the Fc region of human IgG1 at the N-terminus.

Source: HEK293 Cells

Formulation: Lyophilized from sterile PBS, pH 7.4
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Molecular Weight: The rmEGF/Fc is a disulfide-linked homodimer. The reduced monomer consists of 314 aa with a predicted MW of 34.5 kDa and migrates at ~38-44 kDa in SDS-PAGE under reducing conditions.

Purity: > 95 % as determined by SDS-PAGE.

Endotoxin Level: < 1.0 EU per µg of the protein as determined by the LAL method

Biological Activity: Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblasts. The ED50 for this effect is typically 0.5-3 ng/mL.

Predicted N-terminal: Glu

Cell Sciences®
65 Parker Street
Unit 11
Newburyport, MA 01950

Toll Free: 888-769-1246
Phone: 978-572-1070
Fax: 978-992-0298

E-mail: info@cellsciences.com
Website: www.cellsciences.com

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX**. Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

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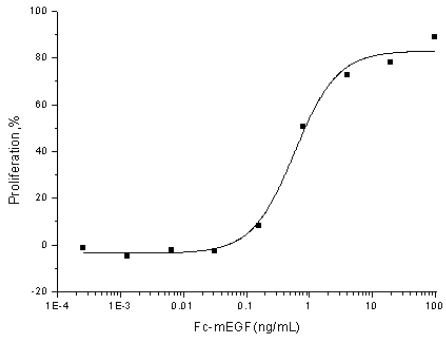

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