Mouse Epiregulin / EREG Protein (Fc Tag)

Catalog Number: **50599-M01H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

EPR

Protein Construction:

A DNA sequence encoding the mature form of mouse EREG (Q61521) (Val 56-Leu 101) was fused with the Fc region of human IgG1 at the N-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells.The ED_{50} for this effect is typically 0.5-2.5 μg/mL.

Endotoxin:

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

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Glu

Molecular Mass:

The recombinant mouse EREG/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 306 amino acids and has a predicted molecular mass of 33.8 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmEREG/Fc monomer is approximately 37 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

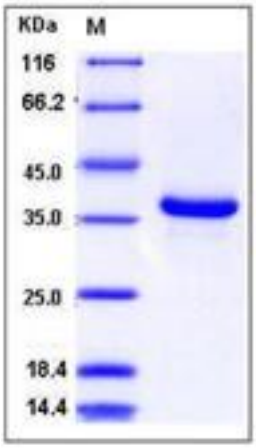
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Epiregulin (EREG) is a member of the epidermal growth factor family. Epiregulin (EREG) can function as a ligand of EGFR (epidermal growth factor receptor), as well as a ligand of most members of the ERBB (v-erb-b2 oncogene homolog) family of tyrosine-kinase receptors. Epiregulin (EREG) exhibit bifunctional regulatory properties: it inhibit the growth of several epithelial tumor cells and stimulated the growth of fibroblasts and various other types of cells. Epiregulin (EREG) bound to the EGF receptors of epidermoid carcinoma A431 cells much more weakly than did EGF, but was nevertheless much more potent than EGF as a mitogen for rat primary hepatocytes and Balb/c 3T3 A31 fibroblasts. These findings suggest that epiregulin (EREG) plays important roles in regulating the growth of epithelial cells and fibroblasts by binding to receptors for EGF-related ligands. Epiregulin (EREG) is the broadest specificity EGF-like ligand so far characterized: not only does it stimulate homodimers of both ErbB-1 and ErbB-4, it also activates all possible heterodimeric ErbB complexes.

References

1.Shelly M, *et al.* (1998) Epiregulin is a potent pan-ErbB ligand that preferentially activates heterodimeric receptor complexes. J Biol Chem. 1998 Apr 24;273(17):10496-505. 2.Shirakata Y, *et al.* (2000) Epiregulin, a novel member of the epidermal growth factor family, is an autocrine growth factor in normal human keratinocytes. J Biol Chem. 275(8): 5748-53. 3.Zhu Z, *et al.* (2000) Epiregulin is Up-regulated in pancreatic cancer and stimulates pancreatic cancer cell growth. Biochem Biophys Res Commun. 273(3): 1019-24.