Human Epiregulin / EREG Protein (Fc Tag)

Catalog Number: **10677-H01H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

ER

Protein Construction:

A DNA sequence encoding the mature form of human EREG (Q61521) (Val 63-Leu 108) was fused with the Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: Human 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 ED50 for this effect is typically 2-8 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 human 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 rhEREG/Fc monomer is approximately 37 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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

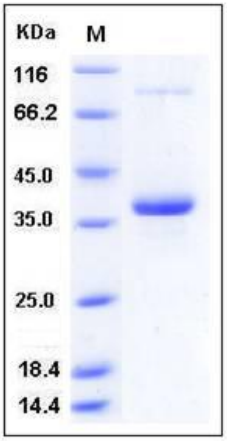
Usage Guide

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.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Epiregulin, also known as EREG, is a secreted and a single-pass type I membrane protein which belongs to the epidermal growth factor family. Epiregulin / EREG contains oneEGF-like domain. In normal adults, Epiregulin / EREG is expressed predominantly in the placenta and peripheral blood leukocytes. High levels of Epiregulin / EREG were detected in carcinomas of the bladder, lung, kidney and colon. Epiregulin / EREG may be a mediator of localized cell proliferation. As a mitogen it may stimulate cell proliferation and / or angiogenesis. 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. The secondary structure at the C-terminus Epiregulin / EREG is different from other epidermal growth factor family ligands because of the lack of hydrogen bonds. The structural difference at the C-terminus may provide an explanation for the reduced binding affinity of epiregulin to the ERBB receptors.

References

1. Toyoda H., et al., 1997, Biochem. J. 326:69-75.
2. Sato K., et al., 2003, FEBS Lett. 553:232-8.
3. Zhuang, S. et al., 2007, Am J Physiol Renal Physiol293 (1):F219-26.