

Human ERP27 Protein (Fc Tag)

Catalog Number: 13256-H05H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

C12orf46; PDIA8; 1810033M07Rik; 1810047B09Rik

Protein Construction:

A DNA sequence encoding the human ERP27 (Q96DN0) (Glu26-Pro269) was fused with Fc region of mouse IgG at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 84 % as determined by SDS-PAGE

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 °C

Predicted N terminal: Glu 26

Molecular Mass:

The recombinant human ERP27/mFc is a disulfide-linked homodimer. The reduced monomer comprises 478 amino acids and has a predicted molecular mass of 53.7 kDa. The apparent molecular mass of the protein is approximately 59 in SDS-PAGE under reducing conditions due to glycosylation.

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:

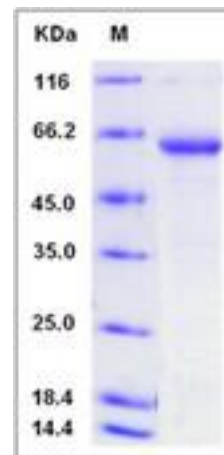
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

ERP27 contains 1 thioredoxin domain and is a noncatalytic member of the protein disulfide isomerase family. Protein disulfide isomerases (PDIs) constitute a family of structurally related enzymes which catalyze disulfide bonds formation, reduction, or isomerization of newly synthesized proteins in the lumen of the endoplasmic reticulum (ER). They act also as chaperones, and are, therefore, part of a quality-control system for the correct folding of the proteins in the same subcellular compartment. PDI has been found to have moderate effects (25-fold) on the rate of oxidative folding of proteins in vitro. Recombinant Human Protein Disulfide Isomerase is involved in disulphide-bond formation and isomerization, as well as the reduction of disulphide bonds in proteins. Recombinant PDI has been found to have moderate effects (25-fold) on the rate of oxidative folding of proteins in vitro. ERP27 is a widely expressed protein which localizes to the ER and may act as a protease, protein disulfide isomerase, thiol-disulfide oxidase or phospholipase. ERP27 doesn't contain a CXXC active site motif indicating that it is a catalytically redox-inactive member of the protein disulfide isomerase family.

References

1. Lamesch P, *et al.* (2007) hORFeome v3.1: a resource of human open reading frames representing over 10,000 human genes. *Genomics*. 89(3):307-15.
2. Ota T, *et al.* (2004) Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat Genet*. 36(1):40-5.
3. Alanen HI, *et al.* (2006) ERp27, a new non-catalytic endoplasmic reticulum-located human protein disulfide isomerase family member, interacts with ERp57. *J Biol Chem*. 281(44):33727-38.

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