

Human IFI30 Protein (His Tag)

Catalog Number: 12623-H08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

GILT; IFI-30; IFI30; IP-30; IP30; GILT; IP30

Protein Construction:

A DNA sequence encoding the human IFI30 (P13284) (Met1-Lys243) with a C-terminal polyhistidine tag was expressed.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 96 % 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: Ser 27

Molecular Mass:

The recombinant human IFI30 is a disulfide-linked homodimer. The reduced monomer comprises 217 amino acids and has a predicted molecular mass of 24.7 kDa. The apparent molecular mass of the protein is approximately 31-34 kDa in SDS-PAGE under reducing conditions.

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:

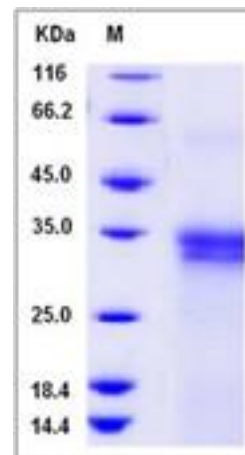
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

IFI30 belongs to the GILT family. This family includes the two characterised human gamma-interferon-inducible lysosomal thiol reductase (GILT) sequences: P13284 and Q9UL08. It also contains several other eukaryotic putative proteins with similarity to GILT. The aligned region contains three conserved cysteine residues. In addition, the two GILT sequences possess a C-X(2)-C motif that is shared by some of the other sequences in the family. This motif is thought to be associated with disulphide bond reduction. IFI30 is a lysosomal thiol reductase that can reduce protein disulfide bonds. It facilitates the generation of MHC class II-restricted epitopes from disulfide bond-containing antigen by the endocytic reduction of disulfide bonds. It also facilitates MHC class I-restricted recognition of exogenous antigens containing disulfide bonds by CD8+ T-cells or crosspresentation. IFI30 may facilitate the complete unfolding of proteins destined for lysosomal degradation and plays an important role in antigen processing.

References

- 1.Haque MA, *et al.* (2002) Absence of gamma-Interferon-inducible Lysosomal Thiol Reductase in Melanomas Disrupts T Cell Recognition of Select Immunodominant Epitopes. *J Exp Med.* 195(10):1267-77.
- 2.Phan UT, *et al.* (2000) Gamma-interferon-inducible lysosomal thiol reductase (GILT). Maturation, activity, and mechanism of action. *J Biol Chem.* 275(34):25907-14.
- 3.Phan UT, *et al.* (2001) Multiple species express thiol oxidoreductases related to GILT. *Immunogenetics.* 53(4):342-6.

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