

AR50577PU-N

Human IFI30 / GILT (58-232, His-tag) - Purified

Alternate names:

Gamma-interferon-inducible lysosomal thiol reductase, Gamma-interferon-inducible protein IP-30, IFI-30, IP-30, IP30

Quantity:

0.25 mg

Concentration:

1 mg/ml (determined by Bradford assay)

Background:

IFI30, also as known as gamma-interferon-inducible lysosomal thiol reductase, belongs to the GILT family. This protein is a lysosomal thiol reductase that at low pH can reduce protein disulfide bonds. The enzyme is expressed constitutively in antigen-presenting cells and induced by gamma-interferon in other cell types. This enzyme has an important role in MHC class II-restricted antigen processing. This protein facilitates the generation of MHC class II-restricted epitopes from disulfide bond-containing antigen by the endocytic reduction of disulfide bonds. Also facilitates MHC class I-restricted recognition of exogenous antigens containing disulfide bonds by CD8+ T-cells or cross-presentation.

Uniprot ID:

[P13284](#)

NCBI:

[NP_006323.2](#)

GenelD:

[10437](#)

Species:

Human

Source:

E. coli

Format:

State: Liquid purified protein

Purity: >90% by SDS - PAGE

Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 10% Glycerol, 1mM DTT

Description:

Recombinant Human IFI30 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by conventional column chromatography, after refolding of the isolated inclusion bodies in a renaturation buffer.

AA Sequence:

MGSSHHHHHH SSGLVPRGSH MGSMNAPLVN VTLYYEALCG GCRAFLIREL FPTWLLVMEI
LNVTLVPYGN AQEQNVSGRW EFKCQHGEED CKFNKVEACV LDELDMEIAF LTIVCMEEFE
DMERSLPLCL QLYAPGLSPD TIMECAMGDR GMQLMHANAQ RTDALQPPHE YVPWVTVNGK
PLEDQTQLLT LVCQLYQGK

Molecular weight: 22.5 kDa (199aa) confirmed by MALDI-TOF

Storage:

Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

Product Citations:

Purchased from Acris:

1. Balce DR, Allan ER, McKenna N, Yates RM. Gamma-Interferon-Inducible Lysosomal Thiol Reductase (GILT) Maintains Phagosomal Proteolysis in Alternatively Activated Macrophages. J Biol Chem. 2014 Sep 24. pii: jbc.M114.584391. PubMed PMID: 25253686.

General Readings:

1. Arunachalam B, Phan UT, Geuze HJ, Cresswell P. Enzymatic reduction of disulfide bonds in lysosomes: characterization of a gamma-interferon-inducible lysosomal thiol reductase (GILT). *Proc Natl Acad Sci U S A*. 2000 Jan 18;97(2):745-50. PubMed PMID: 10639150.
2. Luster AD, Weinshank RL, Feinman R, Ravetch JV. Molecular and biochemical characterization of a novel gamma-interferon-inducible protein. *J Biol Chem*. 1988 Aug 25;263(24):12036-43. PubMed PMID: 3136170.

Pictures:

