

IFNGR2 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	interferon γ receptor 2 (interferon γ transducer 1);interferon gamma receptor 2 (interferon gamma transducer 1);Ifgr2;Ifgt
Protein Construction:	A DNA sequence encoding the extracellular domain of mouse IFNGR2 (NP_032364.1) (Met 1-Val 243) was expressed, with a C-terminal polyhistidine tag. Predicted N terminal: Ser 20
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q63953
Molecular Weight:	26.7 kDa (predicted); 40-45 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 97 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μ m filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Interferon-gamma receptor beta chain (IFN γ 2), also known as IFNGR2, belongs to the type II cytokine receptor family, whose deficiency is a cause of autosomal recessive mendelian susceptibility to mycobacterial disease (MSMD), also known as familial disseminated atypical mycobacterial infection. This accessory factor is an integral part of the IFN-gamma signal transduction pathway and is likely to interact with GAF, JAK1, and/or JAK2.

IFNGR2 is a component of the IFN γ receptor complex along with the IFN γ R alpha chain (IFNGR1) and is a new Bax suppressor. The C-terminal fragment (cytoplasmic domain) of IFN γ R2 is expressed in human cancer cell lines of megakaryocytic cancer (DAMI), breast cancer (MDA-MD-468), and prostate cancer (PC3 cells). The Th1 cytokine IFN γ , acting through its heterodimeric receptors, IFN γ R1 and IFN γ R2, in the induction/proliferation of Th1 cells, might suppress the Th2 responses that may underlie atopic asthma. IFNGR2 has always been seen as a key mechanism for shielding T lymphocytes from the antiproliferative effects of the IFN γ -signal transducer and activator of the transcription 1 (STAT1) pathway.

Reference

- Gao PS, et al. (1999). Nonpathogenic common variants of IFNGR1 and IFNGR2 in association with total serum IgE levels. *Biochem Biophys Res Commun.* 263(2): 425-9.
- Regis G, et al. (2006). IFN γ R2 trafficking tunes IFN γ -STAT1 signaling in T lymphocytes. *Trends Immunol.* 27(2):96-101.
- Al-Muhsen S, et al. (2008). The genetic heterogeneity of mendelian susceptibility to mycobacterial diseases. *J Allergy Clin Immunol.* 122 (6): 1043-51.
- Gomez JA, et al. (2009). The C-terminus of interferon gamma receptor beta chain (IFN γ R2) has antiapoptotic activity as a Bax inhibitor. *Cancer Biol Ther.* 8(18): 1771-86.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481