



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human IFNGR1 (18 - 245 aa) Protein
Catalog Number: hRP-0399
Manufacturer: LD Biopharma, Inc.

Introduction

Human interferon gamma receptor 1 gene (IFNGR1) encodes the ligand-binding chain (alpha) of the gamma interferon receptor. Human interferon-gamma receptor is a heterodimer of IFNGR1 and IFNGR2. A genetic variation in IFNGR1 is associated with susceptibility to *Helicobacter pylori* infection. In addition, defects in IFNGR1 are a cause of mendelian susceptibility to mycobacterial disease, also known as familial disseminated atypical mycobacterial infection. Recent publication from mRNA derived iPS generation method indicated that blocking interferon response is required for iPS colony production.

Recombinant human IFNGR1 extracellular domain cDNA (18-245 aa fragment) was constructed with codon optimization with N-terminal 29aa tag fusion protein form. This protein was expressed in *E. coli* as inclusion bodies, refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified. Incubating this protein with IFNGR2 at 200 ng/ml in culture medium may block interferon activities in vitro.

Gene Symbol: IFNGR1
Accession Number: NP_000407.1
Species: Human
Size: 50 µg / Vial
Composition: 0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

van Loon, A.P., et al. *High-affinity receptor for interferon-gamma (IFN-gamma), a*



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ubiquitous protein occurring in different molecular forms on human cells: blood monocytes and eleven different cell lines have the same IFN-gamma receptor protein. J. Leukoc. Biol. 49 (5), 462-473 (1991)

Liu,B.S., et al. IL-29 and IFNalpha differ in their ability to modulate IL-12 production by TLR-activated human macrophages and exhibit differential regulation of the IFNgamma receptor expression. Blood 117 (8), 2385-2395 (2011)

Applications

1. Used as a soluble / functional protein for interferon pathway and iPS generation efficiency study.
2. As excellent subunit receptor protein for heterodimer dynamic interaction study.
3. As immunogen for specific antibody production.

Quality Control

1. Purity: > 90% by SDS-PAGE.
2. Functional Test: Not tested yet.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGEFEMGTADLGPSSVPTPTNVTIESYNMNP IVYWEYQI
MPQVPVFTVEVKNYGVKNSEWIDACINISHHCNISDHVGDPSNSLWVRVKARVGQKESAYAKS
EEFAVCRDGKIGPPKLDIRKEEKQIMIDIFHPSV FVNGDEQEVDYDPETTCYIRVYNVYVRMNG
SEIQYKILTQKEDDCDEIQCQLAIPVSSLNSQYCVSAEGVLHVWGVTTTEKSKEVCITIFNSSIK
G