Data Sheet (Cat.No.TMPY-02355)

TargetMol

IFNGR1 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	interferon gamma receptor 1;Nktar;interferon γ receptor 1;IFN-γR;CD119;Ifngr;Ifgr;IFN-gammaR
Protein Construction:	A DNA sequence encoding the mouse IFNGR1 (P15261) extracellular domain (Met 1-Asp 253) was expressed, with a polyhistidine tag at the C-terminus. Predicted N terminal: Gly 23
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	P15261
Molecular Weight:	27.4 kDa (predicted); 40-45 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	1. Immobilized Mouse IFNGR1-His at 2 μg/mL (100 μl/well) can bind mouse IFNG-Fc , The EC50 of mouse IFNG-Fc is 20-100 ng/mL. 2. Measured by its ability to inhibit mIFNγ mediated protection of L929 cells infected with vesicular stomatitisvirus (VSV). The ED50 for this effect is 40-200 ng/mL.
Purity:	> 98 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm 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:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

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

The cluster of differentiation (CD) system is commonly used as cell markers in Immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules associating with the immune

function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alters the behavior of the cell. Some CD proteins do not take part in the cell signal process but have other functions such as cell adhesion. CD119 (cluster of differentiation 119), also known as IFNGR1 (interferon-gamma receptor 1), is part of the heterodimeric gamma interferon receptor which consists of IFNGR1 (CD119) and IFNGR2. The IFNGR1 gene encodes the ligand-binding chain (alpha) of the interferon receptor while the IFNGR gene encodes the non-ligand binding partner. The ability of the interferon-γ was achieved through binding to the interferon receptor CD119. After binding, the products of activated T-lymphocytes interferon-γ exerts antiviral activity, growth inhibitory effect, and several immune- regulatory activities on a variety of cell types.

Reference

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Ho IC,et al.(2009) GATA3 and the T-cell lineage: essential functions before and after T-helper-2-cell differentiation. Nat Rev Immunol. 9 (2): 125-35.
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