Bioactive, Mouse IFNγR1 Protein Dimer, His Tag
Product Code: CSP-25156-01
For Research Use Only (RUO)

Protein Name
IFNgR1

Alternate Name(s)
cluster of differentiation 119 (CD119), IMD27A, IMD27B, IFNgR1

Protein Construct
IFNγR1 dimer protein contains a IFNγR1 extracellular domain (UniProt# P15261) fused with a proprietary dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

SDS-Page Molecular Weight
68 kDa. The migration range of the dimer protein with glycosylation under non-reduced condition is 120-190 kDa on SDS PAGE.

Shipping Conditions
Frozen Dry Ice

Expression Host
HEK293T

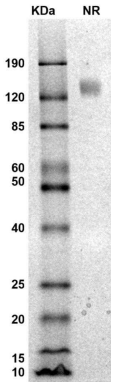
Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Amino Acid Range
A26-S254

Formulation
0.22μm filtered PBS, pH 7.4

Stability & Storage
-80^{0}C

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: IFNγR1 dimer under non-reduced condition

The migration range of the dimer protein with glycosylation under non-reduced condition is 120-190 kDa on SDS PAGE.

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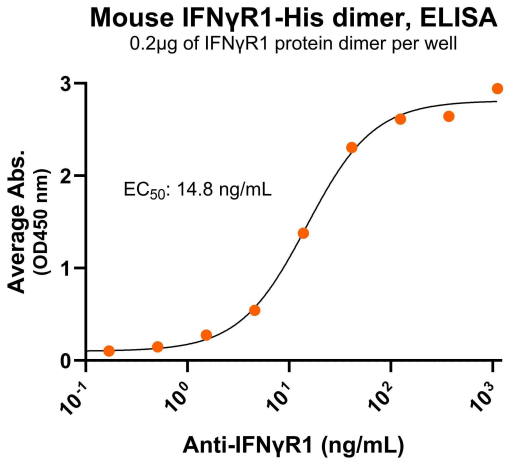
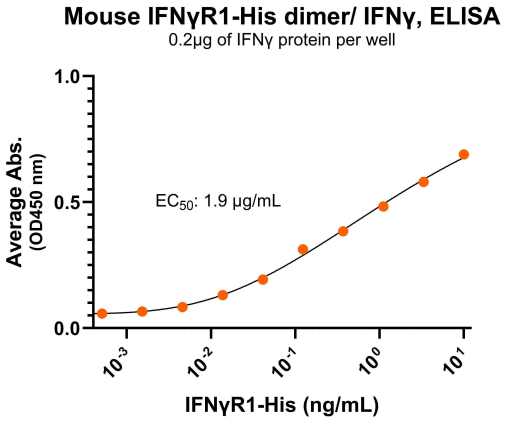
Bioactivity – Antibody Binding



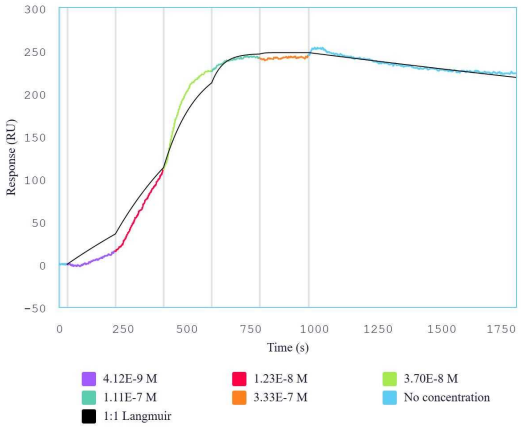
Immobilized mouse IFNγR1 dimer protein, His Tag (CSP-25156-01) at 2 μg/mL (100 μL/well) can bind anti-mouse IFNγR1 monoclonal antibody with half maximal effective concentration (EC50) range of 7.4-29.6 ng/mL (QC tested).

Bioactivity – Ligand Binding



Immobilized mouse IFNγ at 2 μg/mL (100 μL/well) can bind IFNγR1 dimer protein, His Tag (CSP-25156-01) with half maximal effective concentration (EC50) range of 0.9-3.7 ng/mL (QC tested).

Bioactivity – SPR



Immobilized mouse IFNγR1 protein dimer, His tag (CSP-25156-01) can bind mouse IFNγ protein with a KD of 0.4-1.5 nM as determined by SPR.

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Background

Mouse interferon gamma receptor 1 (IFNγR1), also known as cluster of differentiation 119 (CD119), IMD27A and IMD27B, is a subunit of interferon gamma receptor (IFNγR). IFNγR belongs to the type II cytokine receptor family. IFNγR1 is a Type I integral membrane glycoprotein containing extracellular, transmembrane and intracellular domains. IFNγR consists of two subunits: IFNγR1 (ligand-binding) and IFNγR2 (signal transduction). The extracellular domain has two immunoglobulin-like (Ig-like) C2-type domains. The interferon gamma (IFNγ) dimer interacts with two IFNγR1 molecules to activate the cascade signaling pathway. IFNγR is a crucial component of the JAK-STAT signaling pathway that mediates the biological effects of IFN-γ in mice.