Product Name: Bioactive, Rhesus macaque IFNγR1 Protein Dimer, His Tag

Product Code: CSP-25295-01

FOR RESEARCH USE ONLY (RUO)

Protein Name: IFNγR1

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

Expression Host
HEK293T

Amino Acid Range
E18-G245

Protein Construct
IFNγR1 dimer protein contains a IFNγR1 extracellular domain (UniProt# A0A5F8A7G4) 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 heterodimer protein with glycosylation under non-reducing condition is ~120 kDa on SDS PAGE.

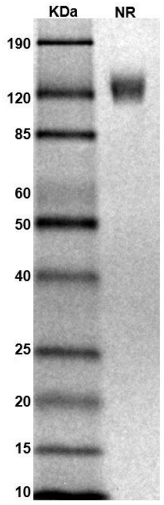
Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Formulation
0.22µm filtered PBS, pH 7.4

Stability & Storage
-80^{0}C

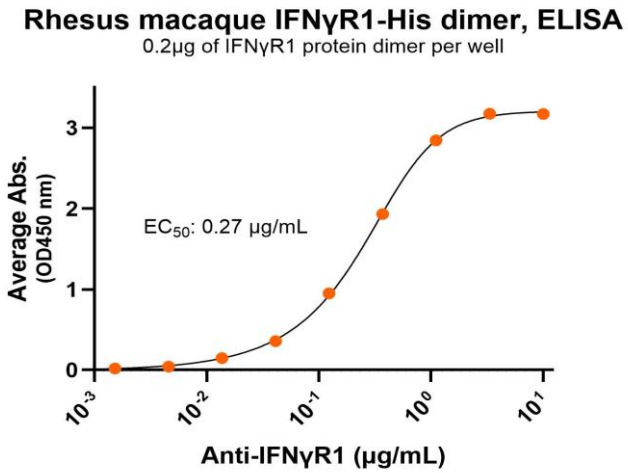
Shipping Conditions
Frozen Dry Ice

SDS-PAGE



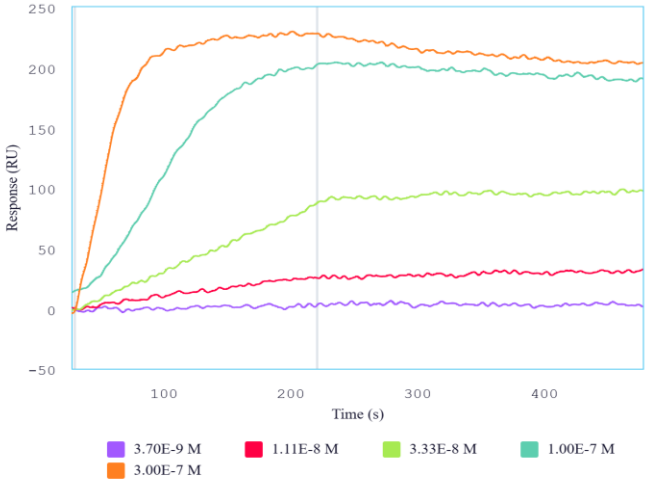
MW: Molecular Weight marker reduced condition
NR: IFNγR1 dimer under non-reduced condition
The migration range of the heterodimer protein with glycosylation under non-reducing condition is ~120 kDa on SDS PAGE.

Antibody Binding



Immobilized Rhesus macaque IFNγR1 protein dimer, His Tag (CSP-25295-01) at 2 μg/mL (100 μL/well) can bind anti-human IFNγR1 polyclonal antibody with half maximal effective concentration (EC50) range of 0.1-0.5 μg/mL (QC tested).

Label Free Binding



Immobilized Rhesus macaque IFNγR1 protein dimer, His Tag (CSP-25295-01) can bind human IFNγ with a KD of 1.5-6.1 nM as determined by LSPR (Nicoya Alto).

Background

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. While structurally and functionally similar to human IFNγR1 homodimer, Rhesus macaque IFNγR1 homodimer is a species-specific tool essential for preclinical studies, basic research, and translational research.