Recombinant Human IFN-γ R1/CD119 His-tag

Catalog Number: 11030-IR

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived human IFN-gamma R1/CD119 protein Glu18-Gly245, with a C-terminal 6-His tag Accession # P15260.1
N-terminal Sequence Analysis	Glu18
Predicted Molecular Mass	27 kDa

SPECIFICATIONS

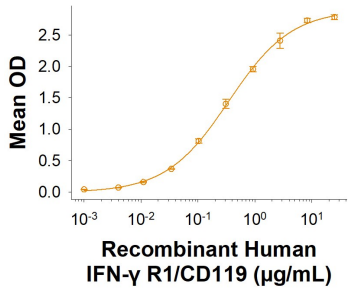
SDS-PAGE	36-46 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human IFN-γ (HEK293-expressed) (Catalog # 10067-IF) is immobilized at 3 µg/mL (100 µL/well), Recombinant Human IFN-γ R1/CD119 His-tag (Catalog # 11030-IR) binds with an ED_{50} of 0.0750-0.900 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 400 µg/mL in PBS.
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

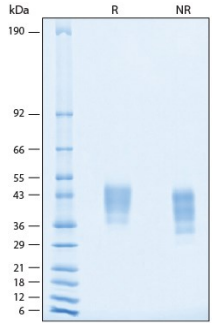
DATA

Binding Activity



Recombinant Human IFN-gamma R1/CD119 His-tag Protein Binding Activity. When Recombinant Human IFN-γ (HEK293-expressed) Protein (Catalog # 10067-IF) is immobilized at 3 µg/mL (100 µL/well), Recombinant Human IFN-γ R1/CD119 His-tag Protein (Catalog # 11030-IR) binds with an ED_{50} of 0.0750-0.900 µg/mL.

SDS-PAGE



Recombinant Human IFN-gamma R1/CD119 His-tag Protein SDS-PAGE. 2 µg/lane of Recombinant Human IFN-gamma R1/CD119 His-tag Protein (Catalog # 11030-IR) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 36-46 kDa.

BACKGROUND

Interferon gamma receptor 1 (IFNGR1), along with IFNGR2, are type II cytokine receptors that combine to form a high affinity signaling complex with the type II interferon, IFNG. Mature human IFNGR1 consists of an extracellular domain (ECD) with 2 Ig-like domains, a transmembrane domain and an intracellular domain with both Jak1 and Stat1 binding motifs. The ECD of human IFNGR1 shares 50% amino acid sequence identity with mouse IFNGR1. The IFNG signaling complex is formed by 2 IFNGR1 subunits binding one IFNG dimer directly, and then 2 IFNGR2 molecules further stabilizing the receptor complex. Complex formation then triggers a signaling cascade that culminates in the transcription of the interferon stimulated genes (ISGs) and additional transcription factors. Ultimately, IFNGR1 mediated signaling regulates several biological processes including innate and acquired immune response, apoptosis and cell cycle progression. IFNGR1 is constitutively expressed in most cell types and deletions or mutations to IFNGR1 result in reduced resistance to bacterial, parasitic, and viral infection.

References:

1. Bhat, M.Y. *et al.* (2018) J. Cell Commun Signal **12**:745.
2. de Weerd, N.A. and Nguyen, T. (2012) Immunol Cell Biol. **90**:483.
3. Mendoza, J.L. *et al.* (2019) Nature **567**:56.
4. Blouin, C.M. and Lamaze, C. (2013) Front Immunol. **4**:267.
5. Alspach, E. *et al.* (2019) Cold Spring Harb Perspect Biol. **11**:a028480.

Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449