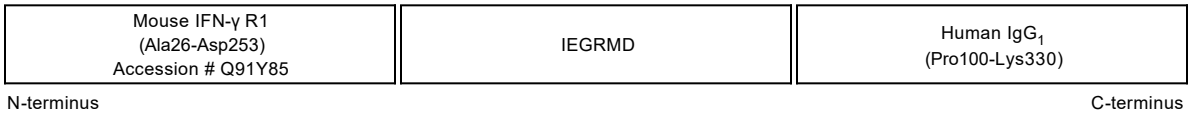
Recombinant Mouse IFN-γ R1/CD119 Fc Chimera

Catalog Number: 1026-GR

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived



N-terminal Sequence Analysis	Ala26
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	52.4 kDa (monomer)

SPECIFICATIONS

SDS-PAGE	70-90 kDa, reducing conditions
Activity	Measured by its ability to inhibit IFN-γ-mediated anti-viral activity using L-929 mouse fibroblast cells. Meager, A. (1987) in Lymphokines and Interferons, a Practical Approach. Clemens, M.J. *et al.* (eds): IRL Press. 129. The ED_{50} for this effect is 6-36 ng/mL in the presence of 1 ng/mL of recombinant mouse IFN-γ.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. 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.

BACKGROUND

The high-affinity IFN-γ receptor complex is made up of two type I membrane proteins, IFN-γ R1 (IFN-γ Rα) and IFN-γ R2 (IFN-γ Rβ). Both proteins are members of the type II cytokine receptor family and share approximately 52% overall sequence identity. IFN-γ R1 is the ligand-binding subunit that is necessary and sufficient for IFN-γ binding and receptor internalization. IFN-γ R2 is required for IFN-γ signaling but does not bind IFN-γ by itself. Human IFN-γ R1 cDNA encodes a 499 amino acid (aa) residue protein with a 17 aa signal peptide, a 228 aa extracellular domain, a 23 aa transmembrane domain, and a 221 aa intracellular domain. Human and mouse IFN-γ R1 share 52% amino acid sequence similarity and bind IFN-γ in a species-specific manner. IFN-γ R1 is constitutively expressed in most cell types. Soluble IFN-γ R1 that binds IFN-γ has been detected in biological fluids. The recombinant soluble IFN-γ R1 produced at R&D Systems has been shown to bind IFN-γ with high affinity and is a potent IFN-γ antagonist.

References:

1. Bach, E.A. *et al.* (1997) Annu. Rev. Immunol. **15**:563.

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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