

DESCRIPTION

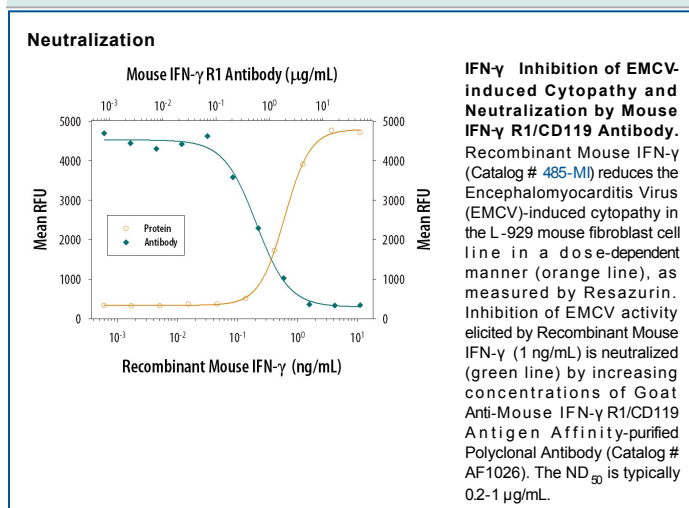
Species Reactivity	Mouse
Specificity	Detects mouse IFN-γ R1/CD119 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human (rh) IFN-γ R1, recombinant mouse (rm) IFN-α/β R2, rmIFN-γ R2, rhIL-10 Rβ, and rhIL-20 Ra is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IFN-γ R1/CD119 Ala26-Asp253 Accession # Q91Y85
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse IFN-γ R1/CD119 Fc Chimera (Catalog # 1026-GR)
Neutralization	Measured by its ability to neutralize IFN-γ R1/CD119-mediated inhibition of EMCV-induced cytopathy in the L-929 mouse fibroblast cell line. Meager, A. (1987) in <i>Lymphokines and Interferons, a Practical Approach</i> . Clemens, M. J. <i>et al.</i> (eds): IRL Press. 129. The Neutralization Dose (ND ₅₀) is typically 0.2-1 µg/mL in the presence of 1 ng/mL Recombinant Mouse IFN-γ.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/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. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 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.