Human IFN-γ R1/CD119 Antibody

Monoclonal Mouse IgG_1 Clone # GIR208

Catalog Number: MAB6732

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IFN-γ R1/CD119 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant mouse IFN-γ R1, recombinant human (rh) IFN-γ R2, or rhIL-10 Rβ is observed.
Source	Monoclonal Mouse IgG_1 Clone # GIR208
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human placenta-derived IFN−γ R1/CD119
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. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

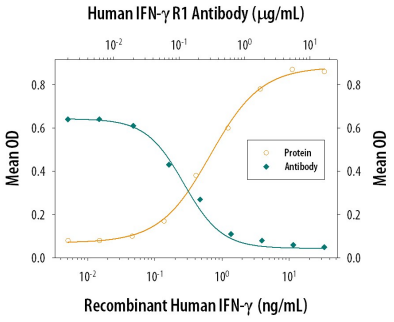
APPLICATIONS

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.*

Neutralization	Measured by its ability to neutralize IFN−γ R1/CD119-mediated inhibition of EMCV-induced cytopathy in the HeLa human cervical epithelial carcinoma cell line. The Neutralization Dose (ND_{50}) is typically 0.03-0.15 µg/mL in the presence of 2 ng/mL Recombinant Human IFN−γ.

DATA

Neutralization



IFN-γ Inhibition of EMCV-induced Cytopathy and Neutralization by Human IFN-γ R1/CD119 Antibody. Recombinant Human IFN-γ (Catalog # 285-IF) reduces the Encephalomyocarditis Virus (EMCV)-induced cytopathy in the HeLa human cervical epithelial carcinoma cell line in a dose-dependent manner (orange line). Inhibition of EMCV activity elicited by Recombinant Human IFN-γ (2 ng/mL) is neutralized (green line) by increasing concentrations of Mouse Anti-Human IFN-γ R1/CD119 Monoclonal Antibody (Catalog # MAB6732). The ND_{50} is typically 0.03-0.15 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
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. ● 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% amino acid 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) 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% aa identity 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.

References:

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

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