Mouse IFN-γ R1/CD119 Antibody
Monoclonal Rat IgG2B Clone # 170911
Catalog Number: MAB10262

DESCRIPTION
Species Reactivity  Mouse
Specificity  Detects mouse IFN-γ R1/CD119 in ELISAs. In sandwich immunoassays, no cross-reactivity or interference with recombinant mouse (rm) IFN-αβ R1, rmIFN-γ R2, recombinant human (rh) IFN-γ R1, rhIL-20 Ra, rhIL-20 Rβ, rmIL-20 Ra, rhIL-22BP or rmIL-22BP is observed.
Source  Monoclonal Rat IgG2B Clone # 170911
Purification  Protein A or G purified from hybridoma culture supernatant
Immunogen  Mouse myeloma cell line NS0-derived recombinant mouse IFN-γ R1/CD119 Gly23-Asp253 (predicted)
Accession # NP_034641
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 either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Mouse IFN-γ R1 Sandwich Immunoassay

<table>
<thead>
<tr>
<th>Reagent</th>
<th>Mouse IFN-γ R1/CD119 Antibody (Catalog # MAB10262)</th>
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</thead>
<tbody>
<tr>
<td>ELISA Capture</td>
<td>2-8 µg/mL</td>
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<tr>
<td>ELISA Detection</td>
<td>0.1-0.4 µg/mL</td>
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<tr>
<td>Standard</td>
<td>Recombinant Mouse IFN-γ R1/CD119 Fc Chimera (Catalog # 1026-GR)</td>
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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. Vogel, S. N. et al. (1982) Infect. Immun. 38:681. The Neutralization Dose (ND₅₀) is typically 4-20 ng/mL in the presence of 1 ng/mL Recombinant Mouse IFN-γ.

DATA

Neutralization

IFN-γ inhibition of EMCV-induced cytopathy and neutralization by mouse IFN-γ R1/CD119 Antibody. Recombinant Mouse IFN-γ (Catalog # 85-MI) reduces the Encephalomyocarditis Virus (EMCV)-induced cytopathy in the L-929 mouse fibroblast cell line in a dose-dependent manner (orange line), as measured by Resazurin. Inhibition of EMCV activity elicited by Recombinant Mouse IFN-γ (1 ng/mL) is neutralized (green line) by increasing concentrations of Mouse IFN-γ R1/CD119 Monoclonal Antibody (Catalog # MAB1026). The ND₅₀ is typically 4-20 ng/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% 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) 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.

References: