**DESCRIPTION**

Species Reactivity: Mouse

Specificity: Detects mouse IFN-γ in ELISAs. In ELISAs, this antibody does not cross-react with recombinant mouse (rm) C10, rmG-CSF, rmGM-CSF, recombinant human IFN-γ, rmIL-1α, rmIL-1β, rmIL-2, rmIL-3, rmIL-4, rmIL-5, rmIL-6, rmIL-7, rmIL-8, rmIL-10 R, rmIL-12, rmIL-13, rmIL-15, rmKGF, rmIL-15, rmM-CSF, rmMIP-1α, rmMIP-1β, rmMIP-2, rmSCF, rmTNF-α, rmTpo, and rmVEGF.

Source: Monoclonal Rat IgG2A and IgG2B Cocktail Clone # 37801/37875

Purification: Protein A or G purified from hybridoma culture supernatant

Immunogen: E. coli-derived recombinant mouse IFN-γ

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**

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.

**Mouse IFN-γ Sandwich Immunoassay**

<table>
<thead>
<tr>
<th>Reagent</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELISA Capture</td>
<td>2-8 µg/mL</td>
</tr>
<tr>
<td>ELISA Detection</td>
<td>0.4-0.8 µg/mL</td>
</tr>
<tr>
<td>Standard</td>
<td>Mouse IFN-γ Antibody (Catalog # MAB785)</td>
</tr>
<tr>
<td></td>
<td>Mouse IFN-γ Biotinylated Antibody (Catalog # BAF485)</td>
</tr>
<tr>
<td></td>
<td>Recombinant Mouse IFN-γ (Catalog # 485-MI)</td>
</tr>
</tbody>
</table>

**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**

Interferon-gamma (IFN-gamma, IFNG), also known as type II or Immune Interferon, exerts a wide range of immunoregulatory activities and is considered to be the prototype proinflammatory cytokine. Mature human IFN-gamma exists as a non-covalently linked homodimer of 20-25 kDa molecular weight variably glycosylated subunits. It shares 86% amino acid (aa) sequence identity with rat IFN-gamma, 38-44% with bovine, canine, cotton rat, equine, feline, human, porcine and rhesus IFN-gamma. IFN-gamma dimers bind to IFN-gamma RI (alpha subunits) which then interact with IFN-gamma RII (beta subunits) to form the functional receptor complex of two alpha and two beta subunits. Inclusion of IFN-gamma RII increases the binding affinity for ligand and the efficiency of signal transduction. IFN-gamma is produced by a variety of immune cells under inflammatory conditions, notably by T cells and NK cells. It plays a key function in host defense by promoting the development and activation of Th1 cells, chemoattraction and activation of monocytes and macrophages, up-regulation of antigen presentation molecules, and immunoglobulin class switching in B cells. It also exhibits antiviral, antiproliferative, and apoptotic effects. In addition, IFN-gamma functions as an anti-inflammatory mediator by promoting the development of regulatory T cells and inhibiting Th17 cell differentiation. The pleiotropic effects of IFN-gamma contribute to the development of multiple aspects of atherosclerosis.