

**DESCRIPTION**

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IFN- $\gamma$ R1/CD119 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) IFN- $\gamma$ R1, rhIFN- $\gamma$ R2, or rhIL-10 R $\beta$ is observed.
<b>Source</b>	Monoclonal Hamster IgG <sub>1</sub> Clone # 2E2.4
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Recombinant mouse IFN- $\gamma$ R1/CD119 Extracellular domain
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m 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 $\mu$ m 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 $\mu$ g/mL	Recombinant Mouse IFN- $\gamma$ R1/CD119 Fc Chimera (Catalog # 1026-GR)

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

The high-affinity IFN- $\gamma$  receptor complex is made up of two type I membrane proteins, IFN- $\gamma$  R1 (IFN- $\gamma$  R $\alpha$ ) and IFN- $\gamma$  R2 (IFN- $\gamma$  R $\beta$ ). Both proteins are members of the type II cytokine receptor family and share approximately 52% overall sequence identity. IFN- $\gamma$  R1 is the ligand-binding subunit that is necessary and sufficient for IFN- $\gamma$  binding and receptor internalization. IFN- $\gamma$  R2 is required for IFN- $\gamma$  signaling but does not bind IFN- $\gamma$  by itself. Human IFN- $\gamma$  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- $\gamma$  R1 share 52% amino acid sequence similarity and bind IFN- $\gamma$  in a species-specific manner. IFN- $\gamma$  R1 is constitutively expressed in most cell types. Soluble IFN- $\gamma$  R1 that binds IFN- $\gamma$  has been detected in biological fluids. The recombinant soluble IFN- $\gamma$  R1 produced at R&D Systems has been shown to bind IFN- $\gamma$  with high affinity and is a potent IFN- $\gamma$  antagonist.

**References:**

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