

## DESCRIPTION

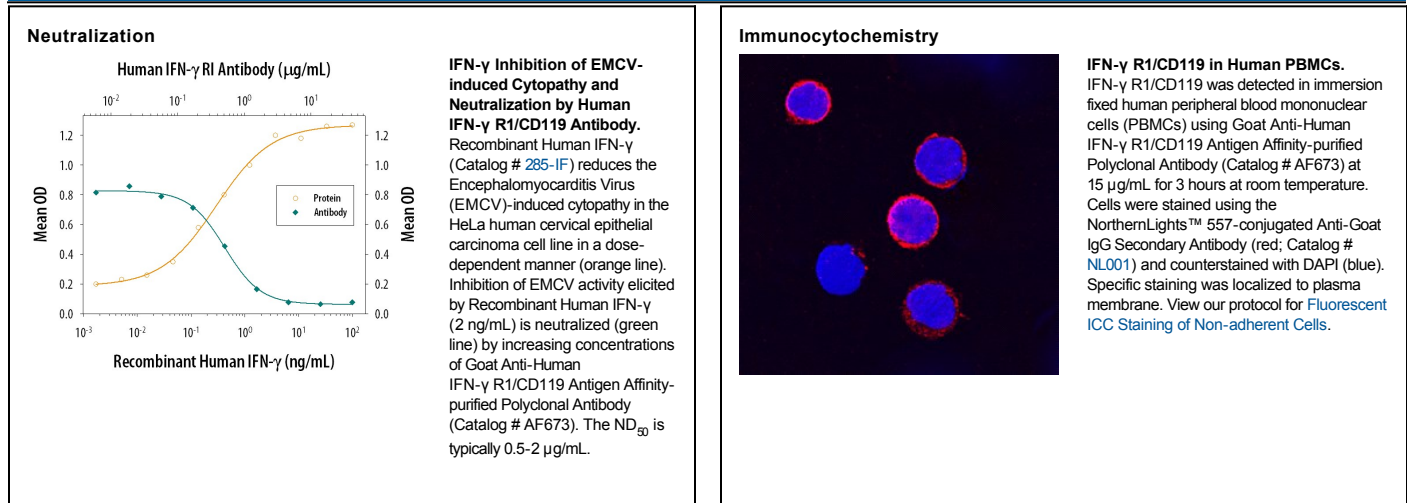
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects IFN- $\gamma$ R1/CD119 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human IFN- $\gamma$ R2 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human IFN- $\gamma$ R1/CD119 Glu18-Gly245 Accession # P15260
<b>Endotoxin Level</b>	<0.10 EU per 1 $\mu$ g of the antibody by the LAL method.
<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 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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 $\mu$ g/mL	Recombinant Human IFN- $\gamma$ R1/CD119 (Catalog # 673-IR)
<b>Immunocytochemistry</b>	5-15 $\mu$ g/mL	See Below
<b>Neutralization</b>	Measured by its ability to neutralize IFN- $\gamma$ R1/CD119-mediated inhibition of EMCV-induced cytopathy in the HeLa human cervical epithelial carcinoma cell line. Meager, A. (1987) in <i>Lymphokines and Interferons, a Practical Approach</i> . Clemens, M. J. et al. (eds): IRL Press. 129. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.5-2 $\mu$ g/mL in the presence of 2 ng/mL Recombinant Human IFN- $\gamma$ .	

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 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>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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.