



## Certificate of Analysis

### Anti-Mouse Interferon Gamma, Clone RMMG-1 (MAb)

**Catalog No:** 22500-1

**Lot No:**

**Size:** 500 µg/vial

**Description:** Rat Monoclonal Antibody against Mouse Interferon Gamma, Neutralizing

**Clone:** RMMG-1

**Volume:** ml

**Concentration:** mg/ml

**Buffer:** Phosphate-buffered saline (PBS) containing 0.1% bovine serum albumin (BSA)

**Endotoxin:** < 1 EU/µg

**Antigen:** Mouse Interferon Gamma

**Isotype:** Rat IgG<sub>1</sub> kappa

**Purity:** > 95%

**Purification Method:** A combination of ion exchange, hydrophobic interaction and size exclusion chromatography

**Specificity:** Neutralizes mouse interferon gamma; binds to mouse interferon gamma with high affinity ( $K_A \sim 10^9 M^{-1}$ )

**Assay Used to Measure Bioactivity/Specificity:** Binding to mouse interferon gamma (mouse IFN- $\gamma$ ) was determined by the method of Scatchard [Scatchard, G. (1949) *Ann. N.Y. Acad. Sci.* 51, 660-672]. Neutralization was determined by the ability of this antibody to block the activity of Mouse IFN- $\gamma$  (PBL 12500) in a cytopathic effect assay using L929 cells challenged with EMCV [Rubinstein *et al.* (1981) *J. Vir.* 37:755. Staehelin *et al.* (1981) *P.N.A.S.* 78(3):1848]. The activity is also measured in a direct binding ELISA to Mouse IFN- $\gamma$  coated plates.

**Tested Applications:** ELISA, Neutralization, Western blot

*Optimal dilutions should be determined by each laboratory for each application.*

**Suggested Applications:** Immunoprecipitation; immunohistochemistry

*Please note that these applications are presented for suggested use only and have not been fully evaluated by PBL.*

**Shipping Conditions:** Dry Ice

**Physical State of Product During Shipping:** Frozen

**Storage Conditions/Comments:** After receipt, the product may be stored at -20°C for short-term use (6 months). For long-term storage, we recommend storing the product at -70°C or below for retention of full activity. When thawing, the contents of the tube should be apportioned in separate tubes so that freezing and thawing is kept to a minimum. Re-freezing should be done on dry ice or in a dry ice/alcohol bath. Further dilution of the product should be in buffers containing protein such as 0.1% bovine serum albumin (BSA). For more information on protein handling, visit our Resource Library at [www.pblassaysci.com](http://www.pblassaysci.com).

**Product Information:** Interferon gamma is the sole representative of the class II interferons. Originally, it was designated immune interferon and unlike the Type I interferons, it is inactivated by incubation at pH 2. This interferon is produced by T-cells, B-cells, NK cells, NKT cells, monocytes, macrophages and dendritic cells. Interferon gamma has many activities in addition to direct antiviral protection of cells. It upregulates cell surface class I and class II MHC which increases the likelihood that foreign antigens will be presented to the adaptive immune system. IFN gamma is a major Th1 cytokine and amplifies Th1 responses through regulation of cell surface markers and its effects on the growth and differentiation of cells. It inhibits the growth of tumor cells and a variety of other cells and has profound effects on leukocyte trafficking.

The RMMG-1 antibody binds to mouse IFN gamma with high affinity and neutralizes its activity. As such, it provides a tool to examine the role of IFN gamma in a number of models. For instance, Siegmund *et al.* (2004) have used this antibody in



## pbl assay science

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a mouse model of inflammatory colitis to confirm in WT mice that IFN gamma does not play a major role in the disease process.

### Authorization

Released by: \_\_\_\_\_

Date:

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