



## Certificate of Analysis

### Anti-Human Interferon Beta, Clone MMHB-3 (MAb)

**Catalog No:** 21400-1

**Lot No:**

**Size:** 50 µg/vial

**Description:** Mouse Monoclonal Antibody against Human Interferon Beta

**Clone:** MMHB-3

**Volume:** ml

**Concentration:** mg/ml

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

**Antigen:** Human interferon beta

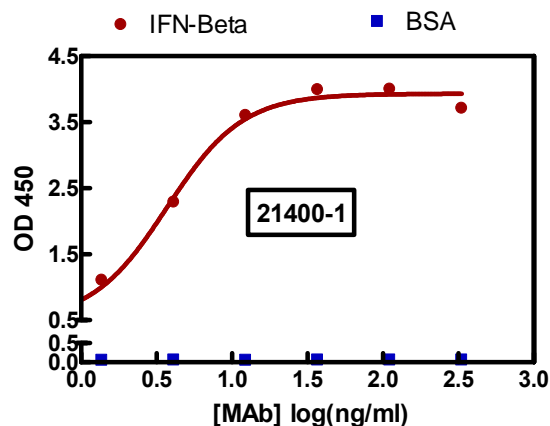
**Isotype:** Mouse IgG<sub>1</sub> kappa

**Bioactivity:** Binds to human interferon beta with high affinity. For best results in experiments involving neutralization of the anti-viral effects of human interferon beta we recommend using Sheep Polyclonal Antibody to human interferon beta (Product 31401-1).

**Assay Used to Measure Bioactivity:** One neutralization unit is the amount of antiserum required to neutralize one unit of human interferon beta (Hu-IFN- $\beta$ ) to a 50% endpoint. Interferon was titrated with the use of the cytopathic effect inhibition assay as described [Rubinstein, S., Familletti, P.C., and Pestka, S. (1981) "Convenient Assay for Interferons," *J. Virol.* 37, 755-758; Familletti, P.C., Rubinstein, S., and Pestka, S. (1981) "A Convenient and Rapid Cytopathic Effect Inhibition Assay for Interferon," in *Methods in Enzymology*, Vol. 78 (S. Pestka, ed.), Academic Press, New York, 387-394]. In this antiviral assay for interferon about 1 unit/ml of interferon is the quantity necessary to produce a cytopathic effect of 50%. The units are determined with respect to the international reference standard for Hu-IFN- $\beta$  provided by the National Institutes of Health [see Pestka, S. (1986) "Interferon Standards and General Abbreviations," in *Methods in Enzymology* (S. Pestka, ed.), Academic Press, New York 119, 14-23].

Due to the variation in ND<sub>50</sub> (Neutralizing Dose) values based on the cell type and assay system, we recommend each user determine the neutralizing concentration of this antibody lot in their assay system. Using an A549/EMCV (cell/virus) system, we have not verified with reasonable consistency the neutralizing concentration of this antibody (the concentration required to inhibit the antiviral effect of human interferon beta by one half).

**Tested Applications:** Direct Binding ELISA



**Figure 1.** Representative binding curve of antibody to mammalian expressed human interferon beta 1a (circle) and to 1% BSA/PBS (square) in a Direct Binding ELISA. High-binding polystyrene plates were coated with either 1 µg/ml human interferon beta 1a or 1% BSA/PBS. Thereafter, titrations of the product were added to the wells. Donkey anti-mouse IgG conjugated to HRP was used as the detection antibody. Colorimetric detection was performed using 3,3',5,5'-Tetramethylbenzidine (TMB) substrate. The HRP-TMB reaction was stopped using a diluted H<sub>2</sub>SO<sub>4</sub>/HCl solution.

**Note:** PBL has not tested the use of this product in western blot, flow cytometry, immunoprecipitation and immunohistochemistry.

**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.pbl assaysci.com](http://www.pbl assaysci.com).

**Authorization**

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

Date:

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