MOUSE MONOCLONAL ANTIBODY AGAINST HUMAN INTERFERON BETA (MMHB-2)

Product Number: **21410-1**
Lot Number: 5815
Size: **500 µg**

Expiration date: June 28, 2014

Description: Mouse Anti-Human Interferon Beta

Clone: MMHB-2

Contents: 500 µg/vial

Concentration: 0.5 mg/ml; after reconstitution with 1ml sterile PBS

Form: Lyophilized

Reconstitution: Dissolve contents of the vial by injection of 1ml sterile PBS

Buffer: Phosphate-buffered saline (PBS) containing 5% trehalose prior to lyophilization

Antigen: Human interferon beta

Isotype: Mouse IgG_1

Purification Method: Protein G affinity chromatography

Specificity: Neutralizes human interferon beta; does not neutralize human interferon alpha or gamma

Assay Used to Measure Bioactivity: The exact concentration of antibody required to neutralize human interferon beta activity is dependent on the cytokine concentration, cell type, growth conditions and type of activity studied. The Neutralization $Dose_{50}$ (ND_{50}) for this antibody is defined as that concentration of antibody required to yield one-half maximal inhibition of the cytokine activity on a responsive cell line, when that cytokine is present at a concentration just high enough to elicit a maximum response. The ND_{50} for this antibody on human (HeLa/EMCV) cells is ~7-21 µg/ml in the presence of 10ng/ml of human interferon beta, based on the anti-viral assay. The specific conditions are described in the figure legends.

Due to the variation in ND_{50} values based on 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: Neutralization; Direct ELISA (0.5-1.0 µg/ml); Western Blot (1-2 µg/ml).
Optimal dilutions should be determined by each laboratory for each application.

Shipping Conditions: Wet ice

Physical State of Product during Shipping: Lyophilized

Special Conditions/Comments: After receipt, this product (as supplied) should be kept at -20°C or below for up to 1 year for retention of full activity. After reconstitution, the contents of the tube should be apportioned in separate tubes so that freezing and thawing is kept to a minimum. This product may be kept at 2 to 8°C for up to 1 month and -20 to-70°C for up to 6 months after reconstitution.

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Product Information

Figure 1

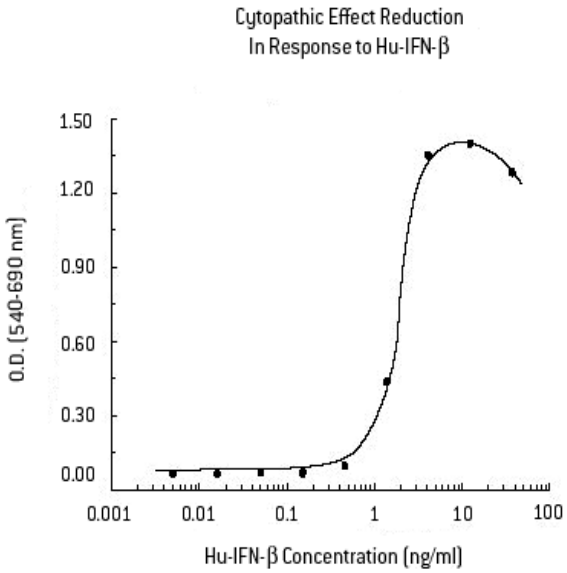

Figure 2

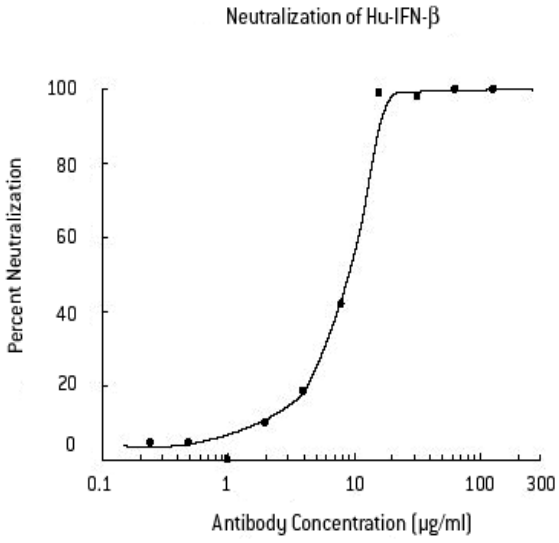

Figure 1: Human IFN-β reduces the cytopathic effect of the lytic virus EMC in a dose-dependent manner, on the human cell line, HeLa. (Meager, A. 1987, *Lymphokines and Interferons, a practical approach,* Clemens, M.J. Morris, A.G. and A.J.H. Gearing, eds. IRL Press, p. 129). The ED_{50} for this effect is typically 2-5 ng/ml.

Figure 2: To measure the ability of the antibody to neutralize the bioactivity of the human interferon beta on HeLa cells, Hu-IFN-β was added to various concentrations of the antibody. The antigen-antibody mixture was added to confluent cultures of the HeLa cells in a 96 well plate. The assay mixture in a total volume of 100µl, containing antibody at the concentrations as indicated, Hu-IFN-β at 10 ng/ml, was incubated at 37°C for 20-24 hours in a humidified CO_2 incubator. At the end of this incubation period, medium was aspirated from all wells and an appropriate titrated amount of the EMCV in pre-warmed culture medium was added to each test well. After another 20-24 hour incubation, the cells were fixed, stained and scored for cytopathic effect by measurement of optical densities in a microplate reader at 540 nm. The ND_{50} of the antibody is approximately 7-21 µg/ml.

For further product information visit www.interferonsource.com

Authorization

Released by: _____ Date: July 2, 2013

This Product is for RESEARCH USE ONLY and is not for sale or use in any *commercial* kit.
NOT FOR DIAGNOSTIC OR THERAPEUTIC USE, OR USE IN HUMANS.
Rev.03