

IFNB1

Mouse Anti-Human IFN-beta Clone MMHB-2 mAb

Catalog No.	CMI227	Quantity:	0.5 mg
Alternate Names:	IFB, IFF, IFNB, interferon beta, IFN-beta, fibroblast interferon		
Description:	Mouse Anti-Human Interferon Beta		
Concentration:	0.5 mg/ml; after reconstitution with 1ml sterile PBS		
Gene ID:	3456		
Specificity:	Neutralizes human interferon beta; does not neutralize human interferon alpha or gamma		
Immunogen:	Human interferon beta		
Isotype:	Mouse		
Clone:	MMHB-2		
Conjugate:	IgG1		
Formulation:	Lyophilized from a solution containing PBS + 5% trehalose		
Purification:	Protein G affinity chromatography		
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.		

Application Notes: 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 Dose₅₀ (ND₅₀) 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 ND₅₀ 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.

Due to the variation in ND₅₀ 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 anti viral effect of human interferon beta by one half).

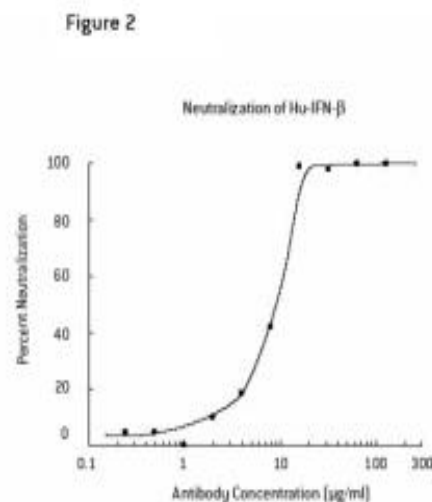
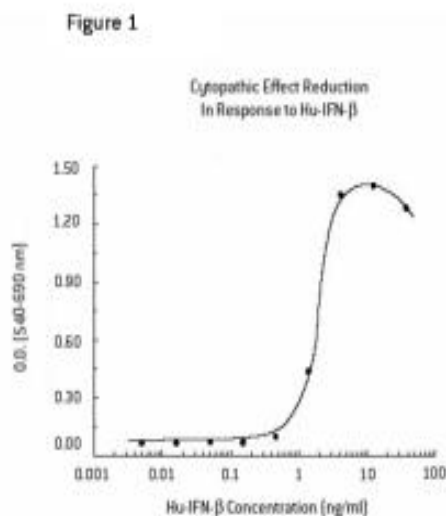


Application Methods: The specific conditions are as follows: Hu-IFN- β was added to various concentrations of the antibody. The antigen-antibody mixture was added to confluent cultures of the HeLa cells in a 96 well plate. The assay mixture in a total volume of 100 μ l, containing antibody at the concentrations as indicated, Hu-IFN- β at 10 ng/ml, was incubated at 37°C for 20-24 hours in a humidified CO₂ 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 ND₅₀ of the antibody is approximately 7-21 μ g/ml.

Storage & Stability: After receipt, this product should be kept at -20°C for retention of full activity. Upon reconstitution with sterile PBS, the antibody can be stored at 2-8°C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquoted and frozen at -20° to -70°C in a manual defrost freezer for 6 months without detectable loss of activity. Avoid repeated freeze-thaw cycles

Fig. 1. Human IFN- β reduces the cytopathic effect of the lytic virus EMC in a dose-dependent manner, on the human cell line, HeLa. The ED50 for this effect is typically 2-5 ng/ml.

Fig 2. Neutralization of the bioactivity of the human interferon beta on HeLa cells.



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

