



Certificate of Analysis

Anti-Human Interferon Beta, Rabbit Serum (PAb)

Catalog No: 31410-1

Lot No:

Size: ~ 2 x 10⁴ Neutralizing Units/vial

Description: Rabbit Polyclonal Antibody against Human Interferon Beta

Volume: ml

Activity: x 10 NU/ml

Concentration: mg/ml (estimate)

Buffer:

Antigen: Recombinant human interferon beta (expressed in *E. coli*)

Assay Used to Measure Bioactivity: One neutralization unit (NU) is the amount of antiserum required to neutralize one unit of human interferon beta 1a (Hu-IFN-β1a) to a 50% endpoint. Interferon was titrated with the use of the cytopathic effect inhibition assay [Rubinstein, S., Familletti, P.C., and Pestka, S. (1981) *J. Virol.* 37:75] using A549 cells and EMCV was used as the challenge virus [Budd *et al.* (1985) *Canc. Chem. Pharm.* 12:39]. 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 by use of a laboratory standard calibrated with respect to the international reference standard for Hu-IFN-β provided by the National Institutes of Health [Gb23-902-531].

Tested Applications: Neutralization

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

Suggested Applications: ELISA; Western blot; immunoprecipitation; immunohistochemistry

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

Product Information: The most common use of this product has been in a pool with Rabbit and Anti-Human Interferon Alpha (PBL # 31101) and Mouse Monoclonal Anti-IFNAR2 (PBL # 21385) to block the activity of all Type I IFNs. For example: Hanibuchi *et al* [*Blood* (2006). 107:3716] used such a pool to demonstrate that dendritic cell derived Type I IFN and GITRL both play a role in stimulating natural killer cells after virus or TLR-9 stimulation. Kvale *et al* [*Blood* (2006) 107:2022] demonstrated that plasmacytoid dendritic cells are resistant to HCMV infection due to autocrine Type I IFN production. Lande *et al* [*J. Immunol.* (2003) 170:1174] used a pool of PBL#31410 and 31101 to demonstrate that blockade of autocrine Alpha/Beta action leads to decreased CXCL-10 secretion from Mycobacterium infected dendritic cells. Severa *et al* [*J. Leuk. Biol* (2006) 79:1286] used PBL #31410 and 31101 separately to demonstrate that the long lived STAT activation in TLR-3 or TLR-4 stimulated monocytoid dendritic cells is due to IFN-Beta and not IFN-Alpha.

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 (m6 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. Refreezing 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.

Authorization

Released by: _____

Date:

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