pbl assay science
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Certificate of Analysis

Anti-Human Interferon Alpha, Rabbit Serum (PAb)

Catalog No: 31101-1
Lot No: 7357R
Size: ≥ 1 x 10^5 Neutralizing Units/vial

Description: Rabbit Polyclonal Antibody against Human Interferon Alpha
Volume: 0.100 ml
Activity: 4.64 x 10^6 NU/ml
Concentration: 0.67 mg/ml (estimate)
Buffer: Phosphate buffered saline (PBS)
Antigen: Recombinant human interferon alpha 2 (alpha 2b) (expressed in *E. coli*)

Assay Used to Measure Bioactivity: One neutralization unit is the amount of antiserum required to neutralize one unit of human interferon alpha (Hu-IFN-α) 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, 755-758] 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-α provided by the National Institutes of Health [Gxa01-901-535]. This material is prepared specifically for effective neutralization of Hu-IFN-α

Tested Applications: Neutralization
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 Anti-Human Interferon Beta (PBL # 31410) and Mouse Anti-IFNAR2 (PBL# 21385) to block the activity of all Type I IFNs. Krug *et al* [*Eur. J. Immunol.* (2001) 31:2154] used a pool of PBL #31101, #31410 and #21385 to demonstrate PBMC-derived Type I IFN is responsible for increased IFN-gamma secretion after stimulation with CpG ODN. Ito et al. [*J. Exp. Med* (2002) 195:1507] used a similar pool to determine that TLR7 stimulated pDC but not mDC induce Th1 development through Type I IFN. Lande *et al.* [*J. Immunol.* (2003) 170:1174] used a pool of PBL#31410 and #31101 to show a blockade of autocrine Alpha/Beta action leads to decreased CXCL-10 secretion from *Mycobacterium*-infected dendritic cells. Jego *et al*. [*Immunity* (2003) 19:225] demonstrated the inhibition of IFN-alpha signaling in a co-culture of pDCs with CD40 stimulated B-cells reduces IgG secretion, while inhibition of IFN-beta signaling does not occur. Ku et al. [*J. Exp. Med*. (2004) 200:917] showed epithelial cells surrounding Varicella Zoster lesions express IFN-alpha by immunohistochemistry (IHC) in a SCID-human skin zenograft model.

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. 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.pblassaysci.com.

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Authorization

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