

Product datasheet for **PP1230P1**

Interferon beta (IFNB1) Rabbit Polyclonal Antibody

Product data:

Product Type: Primary Antibodies

Applications: ELISA, FN, IHC, WB

Recommended Dilution: **Neutralization:** To yield one-half maximal inhibition [ND₅₀] of the biological activity of Human IFN-beta (5.00 µg/ml), a concentration of 2.5 µg/ml of this antibody is required. **Indirect ELISA:** To detect Human IFN-beta by Indirect ELISA (using 100 µl/well antibody solution) a concentration of 0.5-2.0 µg/ml of this antibody is required. In conjunction with compatible secondary reagents, it allows the detection of at least 0.2-0.4 ng/well of recombinant Human IFN-beta.

Sandwich ELISA: To detect Human IFN-beta by Sandwich ELISA (using 100 µl/well antibody solution) a concentration of 0.5-2.0 µg/ml of this antibody is required. In conjunction with a biotinylated Anti-Human IFN-beta (Cat-No PP1230B1 or PP1230B2) as a *Detection* antibody, it allows the detection of at least 0.2-0.4 ng/well of recombinant Human IFN-beta.

Western blot: To detect Human IFN-beta by Western Blot analysis this antibody can be used at a concentration of 0.1-0.2 µg/ml. Used in conjunction with compatible secondary reagents the detection limit for recombinant Human IFN-beta is 1.5-3.0 ng/lane, under either *reducing* or *non-reducing* conditions.

Immunohistochemistry on Paraffin Sections: 0.75 µg/ml with an overnight incubation at 4°C.

This antibody stained formalin-fixed, paraffin-embedded sections of human normal placenta. An HRP-labeled polymer detection system was used with a DAB chromogen. Heat induced antigen retrieval with a pH 6.0 sodium citrate buffer is recommended.

Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute.

Reactivity: Human

Host: Rabbit

Clonality: Polyclonal

Immunogen: Highly purified (>98%) E.coli derived recombinant Human Interferon beta.

Specificity: This antibody detects Human Interferon-beta (IFN-beta). Other species not tested.

Formulation: PBS, pH 7.2 without preservatives

State: Aff - Purified

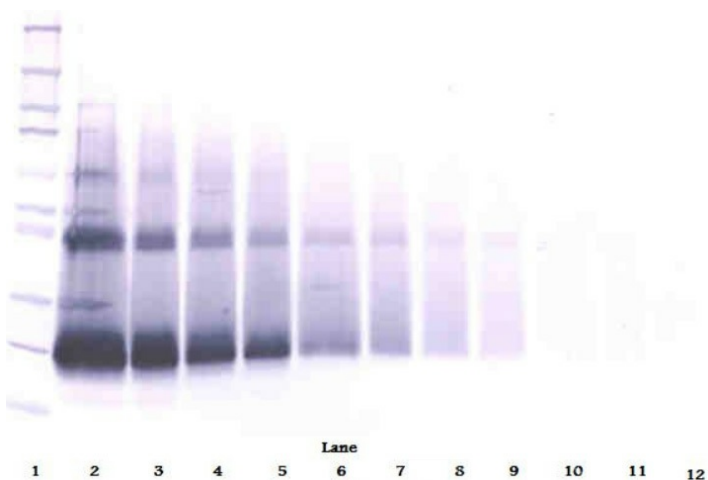
State: Lyophilized (sterile filtered) Ig fraction



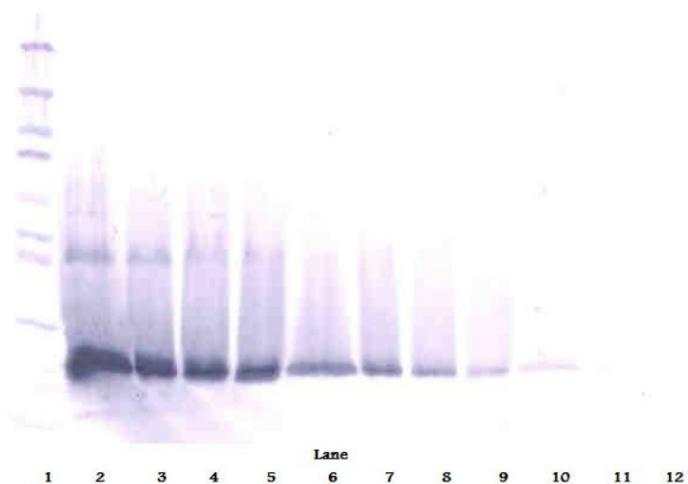
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Reconstitution Method:	Restore in sterile water to a concentration of 0.1-1.0 mg/ml.
Purification:	Antigen Affinity Chromatography using immobilized IFN-beta matrix
Conjugation:	Unconjugated
Storage:	Prior to reconstitution store at 2-8°C. Following reconstitution store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	interferon beta 1
Database Link:	Entrez Gene 3456 Human P01574
Background:	The mammalian type I Interferons (IFN1) are produced in response to viral infection and other inducers. They are divided into alpha and beta subtypes leukocytes and fibroblasts reactivity. The human IFN alphas are encoded by a family of at least 15 different genes, while IFN beta is the unique member of its subtype. There is approximately 50% amino acid homology between the alpha and beta subtypes. Both IFN subtypes are pleiotropic cytokines and have a similar range of biological activities. Differences between alpha subtypes, and between IFN alpha and betas, are in potency and cell type specific activities. In particular, IFN beta elicits a markedly higher antiproliferation response in some cell types such as, embryonal carcinoma, melanoma and melanocytes than do IFN alphas. Higher potency of IFN beta in treatment of multiple sclerosis and certain cancers has been observed. Type I IFNs signal through binding to a common cell surface receptor. Two chains of the receptor, IFNAR1 and IFNAR2, have been identified. Both chains are necessary for function and in the absence of either there is neither high affinity binding nor biological activity. The intracellular portions of the receptor subunits are bound by tyrosine kinases, Jak1 and Tyk2, members of the Janus kinase family. Upon ligand binding these kinases are activated and phosphorylate members of the STAT family of transcription factors, as well as IFNAR1 and 2.
Synonyms:	IFN-beta, IFNB1, IFB, Fibroblast interferon
Note:	Centrifuge vial before opening.
Protein Families:	Druggable Genome, Secreted Protein, Transmembrane
Protein Pathways:	Cytokine-cytokine receptor interaction, Cytosolic DNA-sensing pathway, Jak-STAT signaling pathway, Natural killer cell mediated cytotoxicity, RIG-I-like receptor signaling pathway, Toll-like receptor signaling pathway

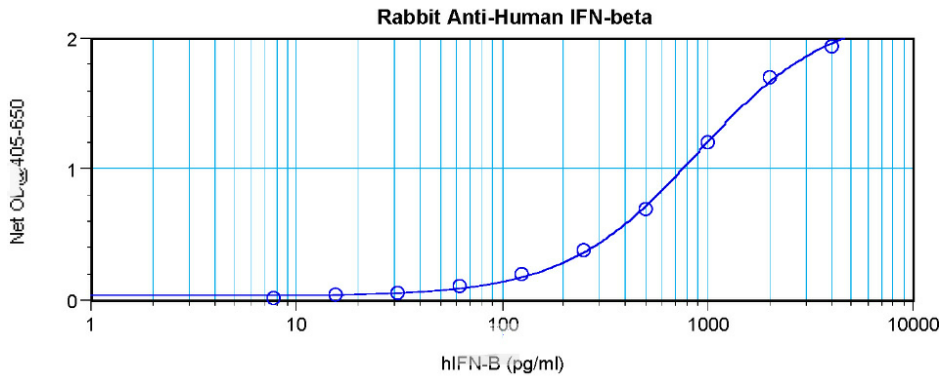
Product images:



Western Blot (Unreduced) using IFNB / Interferon beta antibody (Cat.-No [PP1230P])



Western Blot (Reduced) using IFNB / Interferon beta antibody (Cat.-No [PP1230P])



Sandwich ELISA using IFNB / Interferon beta antibody Cat.-No [PP1230P]