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Anti-IFN beta Antibody

Catalog # AP61370

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P01574
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	22294

Additional Information

Gene ID	3456
Other Names	IFB; IFNB; Interferon beta; IFN-beta; Fibroblast interferon
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human IFN beta. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/50 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/50 - 1/200) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

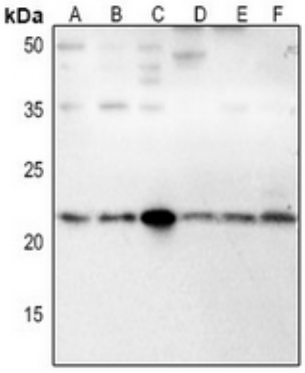
Protein Information

Name	IFNB1 (HGNC:5434)
Synonyms	IFB, IFNB
Function	Type I interferon cytokine that plays a key role in the innate immune response to infection, developing tumors and other inflammatory stimuli (PubMed:10049744, PubMed:10556041, PubMed:6157094, PubMed:6171735, PubMed:7665574, PubMed:8027027, PubMed:8969169). Signals via binding to high-affinity (IFNAR2) and low-affinity (IFNAR1) heterodimeric receptor, activating the canonical Jak-STAT signaling pathway resulting in transcriptional activation or repression of interferon-regulated genes that encode the effectors of the interferon response, such as antiviral proteins, regulators of cell proliferation and differentiation, and immunoregulatory proteins (PubMed:10049744, PubMed:10556041, PubMed:7665574, PubMed:8027027, PubMed:8969169). Signals mostly via binding to a IFNAR1-IFNAR2 heterodimeric receptor, but can also function with IFNAR1 alone and independently of Jak-STAT pathways (By similarity). Elicits a wide variety of

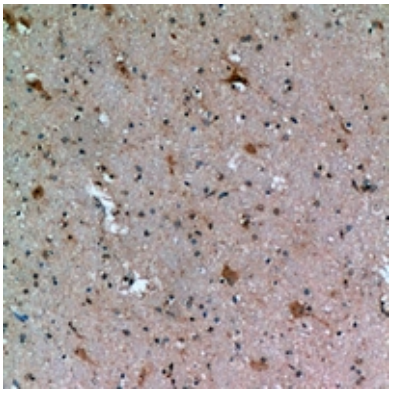
responses, including antiviral and antibacterial activities, and can regulate the development of B-cells, myelopoiesis and lipopolysaccharide (LPS)- inducible production of tumor necrosis factor (By similarity). Plays a role in neuronal homeostasis by regulating dopamine turnover and protecting dopaminergic neurons: acts by promoting neuronal autophagy and alpha-synuclein clearance, thereby preventing dopaminergic neuron loss (By similarity). IFNB1 is more potent than interferon-alpha (IFN- alpha) in inducing the apoptotic and antiproliferative pathways required for control of tumor cell growth (By similarity).

Cellular Location Secreted.

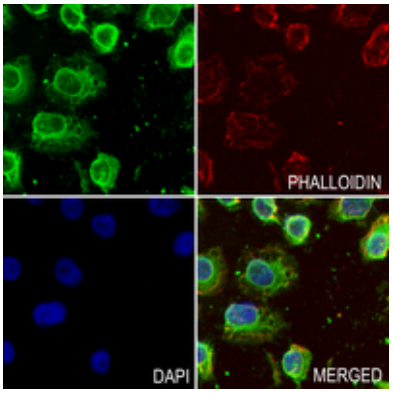
Images



Western blot analysis of IFN beta expression in Hela (A), H1688 (B), H446 (C), mouse lung (D), mouse kidney (E), rat spleen (F) whole cell lysates. (Predicted band size: 22 kD; Observed band size: 22 kD)

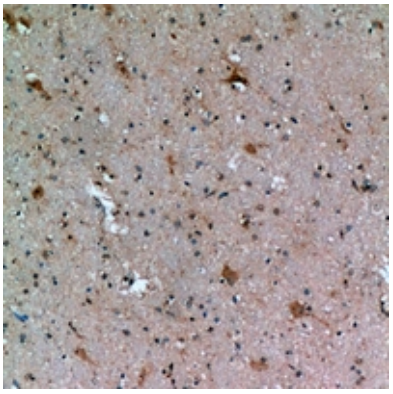


Immunohistochemical analysis of IFN beta staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of IFN beta staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Immunohistochemical analysis of IFN beta staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room



temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.