10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IFNB1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8539A

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P01574
Other Accession	O77812
Reactivity	Human
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	22294
Antigen Region	39-66

Additional Information

Gene ID	3456
Other Names	Interferon beta, IFN-beta, Fibroblast interferon, IFNB1, IFB, IFNB
Target/Specificity	This IFNB1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 39-66 amino acids from the N-terminal region of human IFNB1.
Dilution	WB~~1:2000 IHC-P~~1:100~500 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	IFNB1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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.

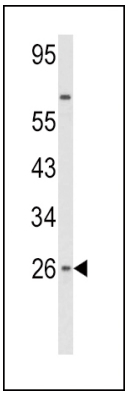
Background

IFNB1 has antiviral, antibacterial and anticancer activities.

References

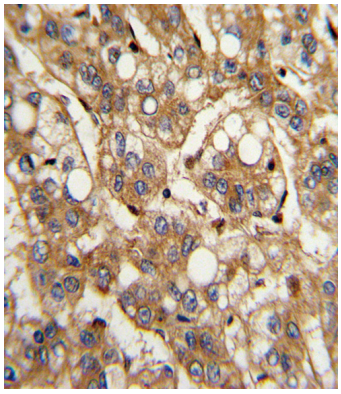
Lienenklaus,S.,et.al., J. Immunol. 183 (5), 3229-3236 (2009)
Eto,T.et.al., Nat. Med. 5 (5), 577-581 (1999)

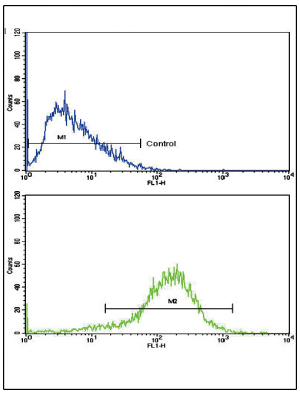
Images



Western blot analysis of IFNB1 Antibody (N-term) (Cat. #AP8539a) in HepG2 cell line lysates (35ug/lane). IFNB1 (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human hepatocarcinoma with IFNB1 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.





Flow cytometric analysis of HepG2 cells using IFNB1 Antibody (N-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.