

IFNB1 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8539a

Specification

IFNB1 Antibody (N-term) - 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
Antigen Region	39-66

IFNB1 Antibody (N-term) - 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~~1:10~50
FC~~1:25

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.

IFNB1 Antibody (N-term) - 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

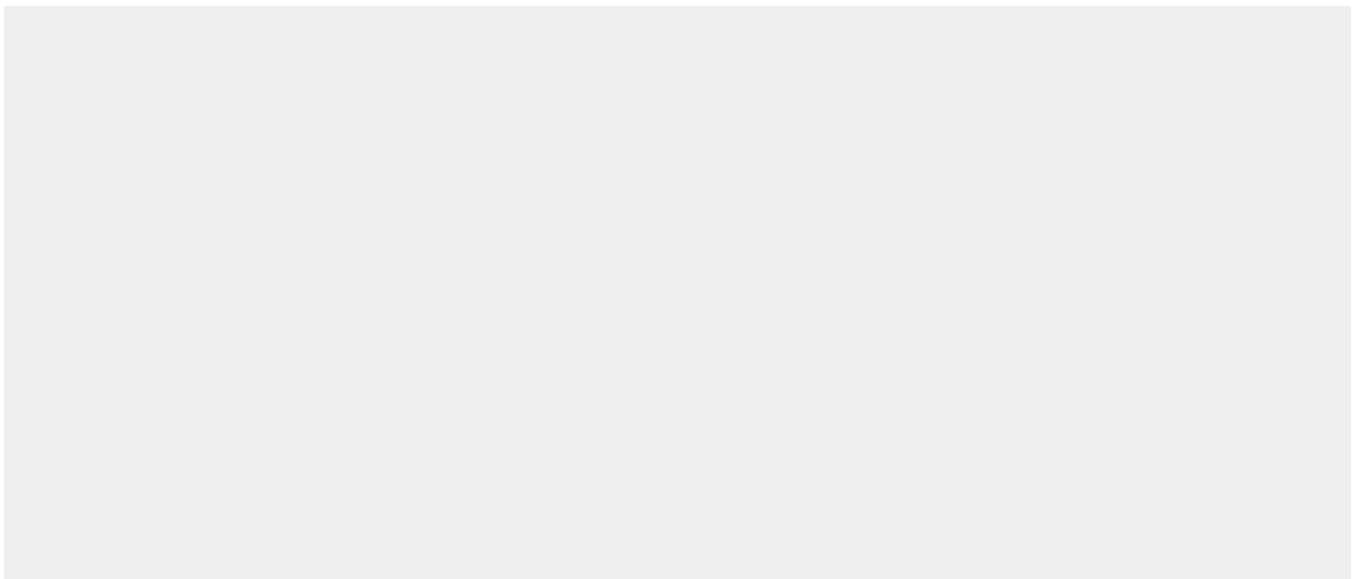
Secreted.

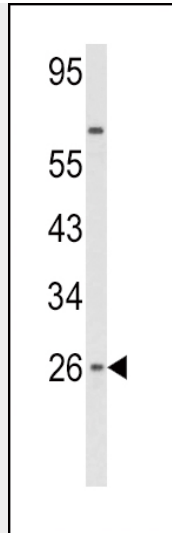
IFNB1 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

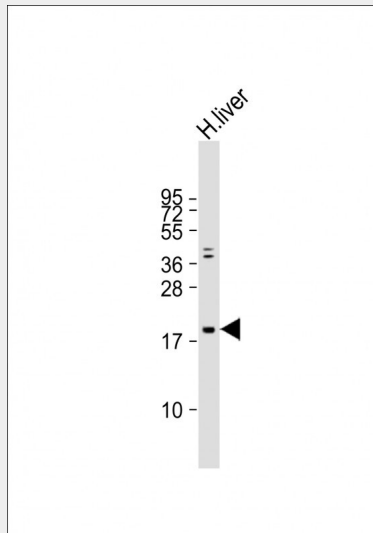
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

IFNB1 Antibody (N-term) - Images

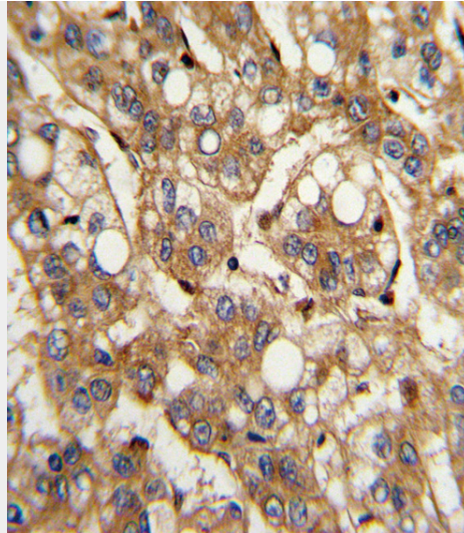




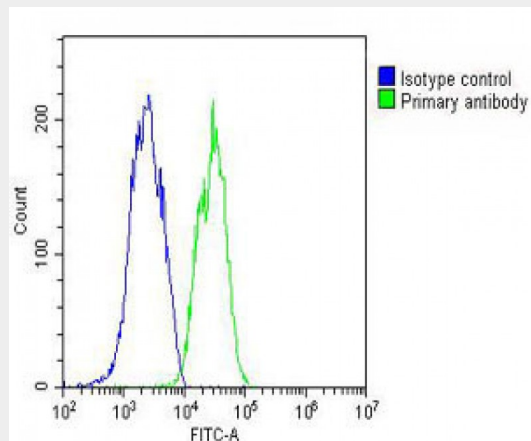
Western blot analysis of IFNβ1 Antibody (N-term) (Cat. #AP8539a) in HepG2 cell line lysates (35ug/lane). IFNβ1 (arrow) was detected using the purified Pab.



Anti-IFNβ1 Antibody (N-term) at 1:2000 dilution + human liver lysate Lysates/proteins at 20 μg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 22 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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.



Overlay histogram showing HepG2 cells stained with AP8539a (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP8539a, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG ($1\mu\text{g}/1 \times 10^6$ cells) used under the same conditions. Acquisition of >10,000 events was performed.

IFNB1 Antibody (N-term) - Background

IFNB1 has antiviral, antibacterial and anticancer activities.

IFNB1 Antibody (N-term) - References

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