

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

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**IFNB1 Antibody (N-term) - Product Information**

Application	IHC-P, WB, FC,E
Primary Accession	<a href="#">P01574</a>
Other Accession	<a href="#">O77812</a>
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**

IHC-P~~1:10~50

WB~~1:2000

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.

**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).

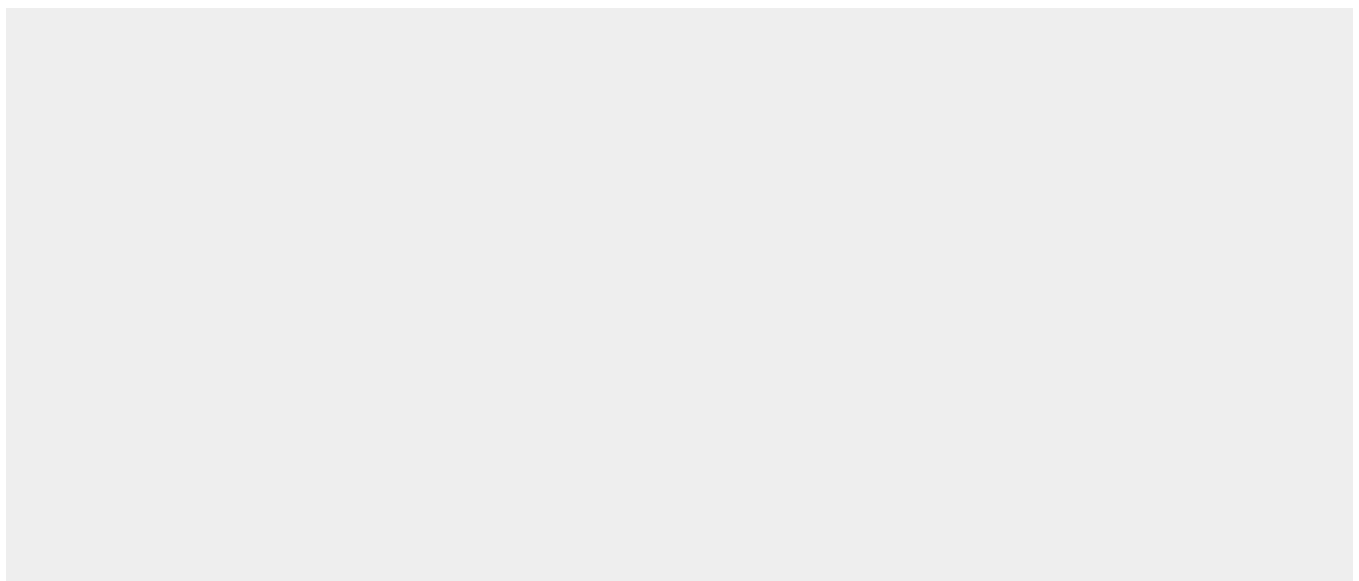
**Cellular Location**

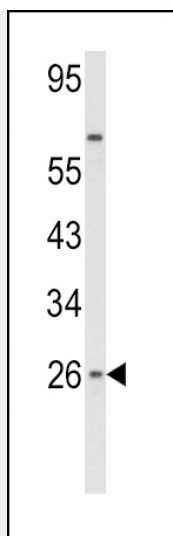
Secreted.

**IFNB1 Antibody (N-term) - Protocols**

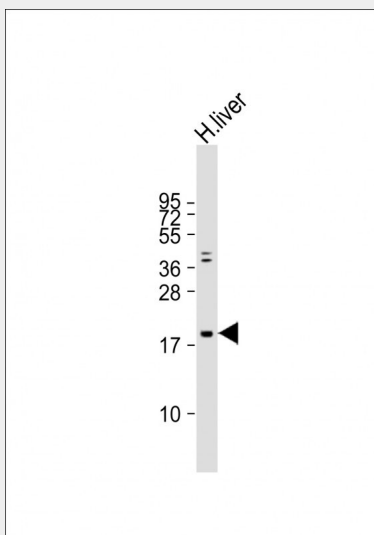
Provided below are standard protocols that you may find useful for product applications.

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

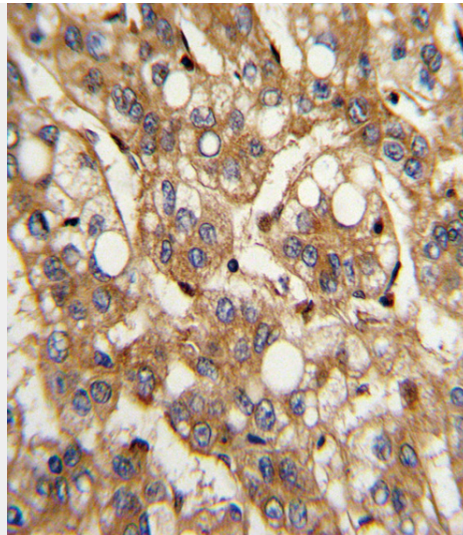
**IFNB1 Antibody (N-term) - Images**



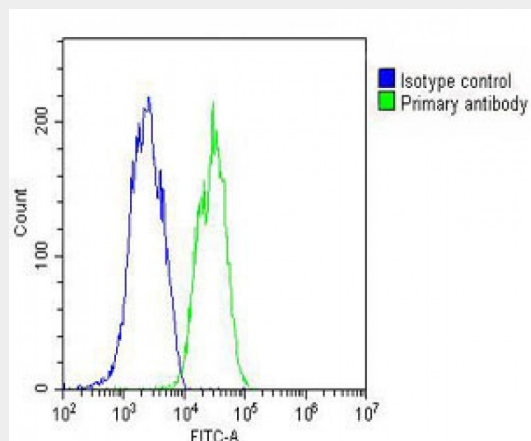
Western blot analysis of IFNB1 Antibody (N-term) (Cat. #AP8539a) in HepG2 cell line lysates (35ug/lane). IFNB1 (arrow) was detected using the purified Pab.



Anti-IFNB1 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 (1µg/1x10<sup>6</sup> 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)