

# IFNB1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP8539A

## Product Information

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<b>Application</b>	WB, IHC-P, FC, E
<b>Primary Accession</b>	<a href="#">P01574</a>
<b>Other Accession</b>	<a href="#">O77812</a>
<b>Reactivity</b>	Human
<b>Predicted</b>	Monkey
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Calculated MW</b>	22294
<b>Antigen Region</b>	39-66

## Additional Information

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<b>Gene ID</b>	3456
<b>Other Names</b>	Interferon beta, IFN-beta, Fibroblast interferon, IFNB1, IFB, IFNB
<b>Target/Specificity</b>	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.
<b>Dilution</b>	WB~~1:2000 IHC-P~~1:100~500 FC~~1:25 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	IFNB1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	IFNB1 ( <a href="#">HGNC:5434</a> )
<b>Synonyms</b>	IFB, IFNB
<b>Function</b>	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

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IFNB1 has antiviral, antibacterial and anticancer activities.

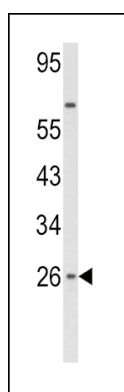
## References

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

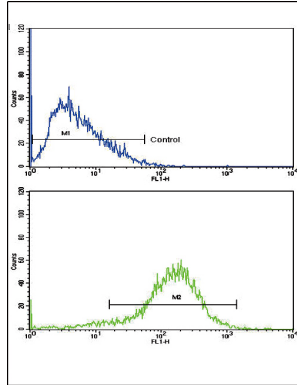
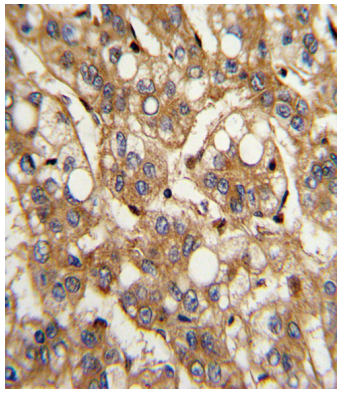
## Images

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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 IFNβ1 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.

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