

# Product Datasheet

## IFN-beta Antibody - BSA Free

### NBP1-77288

Unit Size: 0.1 mg

Store at 4C.

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Updated 10/23/2024 v.20.1

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**NBP1-77288**

IFN-beta Antibody - BSA Free

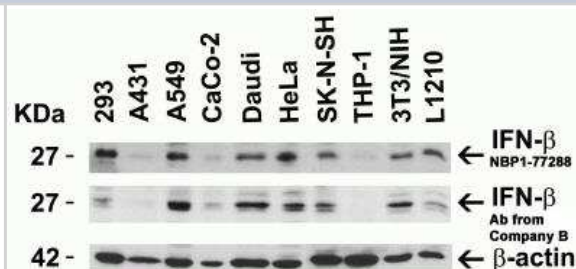
Product Information	
Unit Size	0.1 mg
Concentration	1 mg/ml
Storage	Store at 4C.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Peptide affinity purified
Buffer	PBS
Target Molecular Weight	22 kDa

Product Description	
Host	Rabbit
Gene ID	3456
Gene Symbol	IFNB1
Species	Human, Mouse, Rat
Specificity/Sensitivity	Human IFN-beta has one (187aa, 22kD). Mouse IFN-beta has one isoform (182aa, 22kD) and Rat IFN-beta also has one isoform (184aa, 22kD). NBP1-77288 can detect human isoform, and possibly detect mouse and rat.
Immunogen	Antibody was raised against a peptide corresponding to 17 amino acids near the center of human IFN-beta. The immunogen is located within amino acids 110-160 of IFN-beta. Amino Acid Sequence: LEEKLEKEDFTRGKRMS

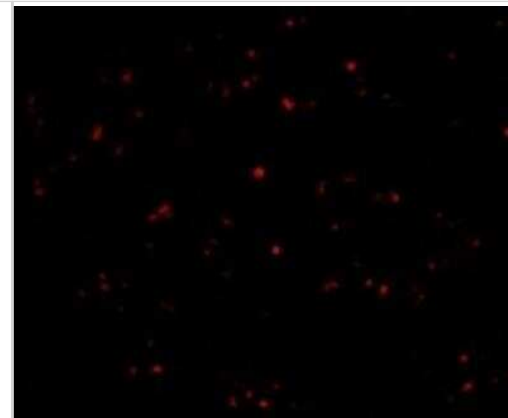
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 4-10 ug/mL, ELISA 1:100-1:2000, Immunohistochemistry 2.5 ug/mL, Immunocytochemistry/ Immunofluorescence 20ug/ml, Immunohistochemistry-Paraffin 2.5ug/ml, Immunohistochemistry-Frozen
Application Notes	Use in IHC-Fr reported in scientific publication (PMID: 32404939).

**Images**

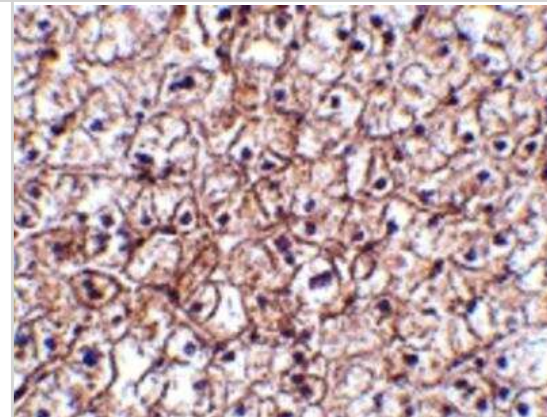
Western Blot: IFN-beta Antibody [NBP1-77288] - Independent Antibody Validation (IAV) via Protein Expression Profile in Human and Mouse Cell Lines. Loading: 15 ug of lysates per lane. Antibodies: IFN-beta NBP1-77288 (4 ug/mL), IFN-beta from Company B, (5 ug/mL) and beta-actin NBP1-76692 (1 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



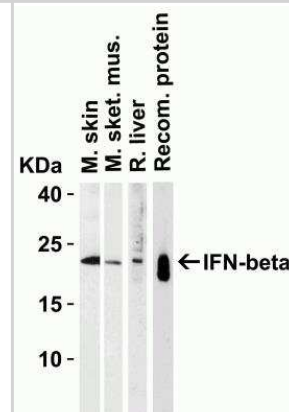
Immunocytochemistry/Immunofluorescence: IFN-beta Antibody [NBP1-77288] - Analysis of 4% paraformaldehyde-fixed human liver cells labeling IFN-beta with at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red).



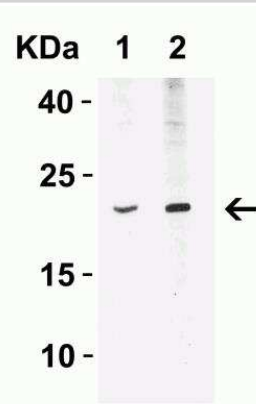
Immunohistochemistry-Paraffin: IFN-beta Antibody [NBP1-77288] - Analysis of paraffin-embedded human liver tissue using anti-IFN-beta at 5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



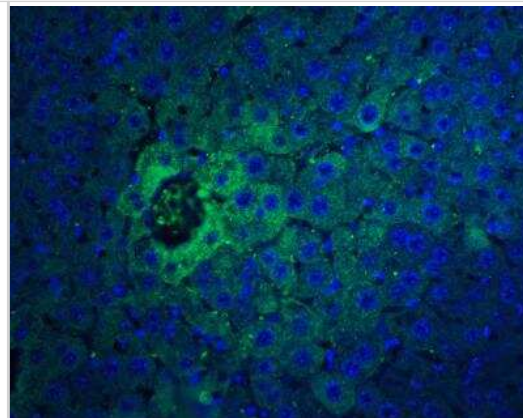
Western Blot: IFN-beta Antibody [NBP1-77288] - Validation in Multiple Tissues and Recombinant Protein Loading: 15 ug of lysates per lane. Antibodies: IFN-beta (4 ug/mL), 1h incubation at RT in 5% NFDN/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



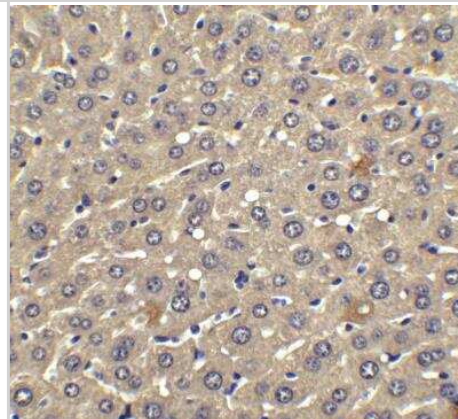
Western Blot: IFN-beta Antibody [NBP1-77288] - Loading: 15 ug of lysates per lane. Antibodies: IFN-beta (4 ug/mL), IFN-beta (5 ug/mL) and beta-actin (1 ug/mL), 1h incubation at RT in 5% NFDN/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



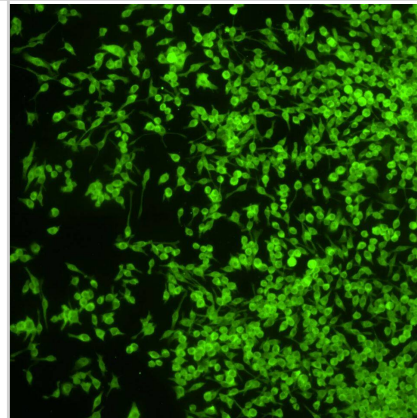
Immunocytochemistry/Immunofluorescence: IFN-beta Antibody [NBP1-77288] - analysis of 4% paraformaldehyde-fixed mouse liver tissue labeling IFN-beta with 4243 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).



Immunohistochemistry-Paraffin: IFN-beta Antibody [NBP1-77288] - Analysis of paraffin-embedded human liver tissue using anti-IFN-beta antibody at 2.5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunocytochemistry/Immunofluorescence: IFN-beta Antibody [NBP1-77288] - Analysis of IFN-beta Antibody on mouse N9 cell line. Dilution 1:200. Image from verified customer review.



## Publications

Kevin Chih-Yang Huang, Shu-Fen Chiang, Tao-Wei Ke, Tsung-Wei Chen, Ching-Han Hu, Pei-Chen Yang, Hsin-Yu Chang, Ji-An Liang, William Tzu-Liang Chen, K. S. Clifford Chao DNMT1 constrains IFN $\beta$ -mediated anti-tumor immunity and PD-L1 expression to reduce the efficacy of radiotherapy and immunotherapy *Oncoimmunology* 2021-10-21 [PMID: 38283033]

Mariottoni P, Jiang SW, Prestwood CA et al. Single-Cell RNA Sequencing Reveals Cellular and Transcriptional Changes Associated With M1 Macrophage Polarization in Hidradenitis Suppurativa *Frontiers in Medicine* 2021-08-24 [PMID: 34504848] (Immunohistochemistry)

Dharshika C, Gonzales J, Chow A et al. Stimulator of interferon genes (STING) expression in the enteric nervous system and contributions of glial STING in disease *Neurogastroenterology & Motility* 2023-02-27 (Immunohistochemistry)

Jana A, Wang X, Leasure JW et al. Increased Type I interferon signaling and brain endothelial barrier dysfunction in an experimental model of Alzheimer's disease *Scientific reports* 2022-10-01 [PMID: 36182964] (IHC-Fr, Mouse)

Liu J, Lao L, Chen J et al. The IRENA lncRNA converts chemotherapy-polarized tumor-suppressing macrophages to tumor-promoting phenotypes in breast cancer *Nat Cancer* 2022-02-05 [PMID: 35122000]

Stolberg-Stolberg J, Boettcher A, Sambale M et al. Toll-like receptor 3 activation promotes joint degeneration in osteoarthritis *Cell death & disease* 2022-03-11 [PMID: 35277480] (IF/IHC, Mouse)

Kang NX, Zou Y, Liang QH Et al. Anemoside B4 inhibits enterovirus 71 propagation in mice through upregulating 14-3-3 expression and type I interferon responses *Acta pharmacologica Sinica* 2021-07-28 [PMID: 34321612]

Skopelja-Gardner S, An J, Tai J et al. The early local and systemic Type I interferon responses to ultraviolet B light exposure are cGAS dependent *Sci Rep* 2020-05-13 [PMID: 32404939] (IHC-Fr, Mouse)

Satoh T, Wada R, Yajima N et al. Tumor Microenvironment and RIG-I Signaling Molecules in Epstein Barr Virus-Positive and -Negative Classical Hodgkin Lymphoma of the Elderly *J Clin Exp Hematop.* 2014-06-19 [PMID: 24942949] (IHC-P, Human)

### Details:

Interferon beta antibody used for IHC-P on human Classical Hodgkin Lymphoma/CHL cases - antigen retrieval with Tris/EDTA buffer pH9.0 125C for 3 min, blocking with Background Sniper, Primary 1:500 dilution ON 4C, endogenous peroxidase blocking with 1% H<sub>2</sub>O<sub>2</sub> in methanol, detection with MACH3 Rabbit HRP Polymer Detection -EnzMet visualization. Fig. 3, last panel - double immunostaining of IFN beta (black ) with CD30 (red - Hodgkin and Reed Sternberg cells) in Epstein-Barr virus /EBV positive and negative CHL cases.

Kock M, Mostert J, De Keyser J et al. Interferon-beta treatment and the natural history of relapsing-remitting multiple sclerosis. *Ann. Neurol.* 2007-01-01 [PMID: 17702024]

Colonna M. TLR pathways and IFN-regulatory factors: to each its own. *Eur. J. Immunol.* 37:306-9. 2007-01-01 [PMID: 17273997]

Gresser I. Wherefore interferon? . *J. Leuk. Biol.* 61:567-74. 1997-01-01 [PMID: 9129205]







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### **Products Related to NBP1-77288**

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NBP1-77288PEP	IFN-beta Antibody Blocking Peptide
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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