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Datasheet for 600-401-BT6

IFN beta Antibody

Overview

Description:	Anti-IFN beta (RABBIT) Antibody - 600-401-BT6
Item No.:	600-401-BT6
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:	Type I Interferons (IFN-alpha/beta) are produced primarily in response to viral infection by "Natural IFN-producing cells" (IPCs) as part of the host immune response and can also inhibit the development of tumors. IFN-beta binding by its receptor results in the activation of the tyrosine kinases Jak1 and Tyk2 and phosphorylation of members of the STAT family of transcription factors, leading to the transcription and expression of the immune response genes. More recently, several members of the toll-like receptor (TLR) family were found to stimulate the production IFN-beta. IFN-beta is currently used clinically for treatment of tumors, infections and multiple sclerosis.
Synonyms:	IFN-beta Antibody, IFB, IFF, IFNB, IFB, Interferon beta, Fibroblast interferon, IFN-beta
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	IFNB1
Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-IFN-beta antibody was prepared from whole rabbit serum produced by repeated immunizations with a 17 amino acid synthetic peptide from near the internal region of human IFN-b.

Purity/Specificity:	Anti-IFN-beta Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with IFN-beta from other sources has not been determined.
Relevant Links:	• UniProtKB - P01574 • GeneID - 3456 • NCBI - AAC41702

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-IFN-beta Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 22 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:50,000
IF:	20 µg/mL
IHC:	5 µg/mL
WB:	5 µg/mL

Formulation

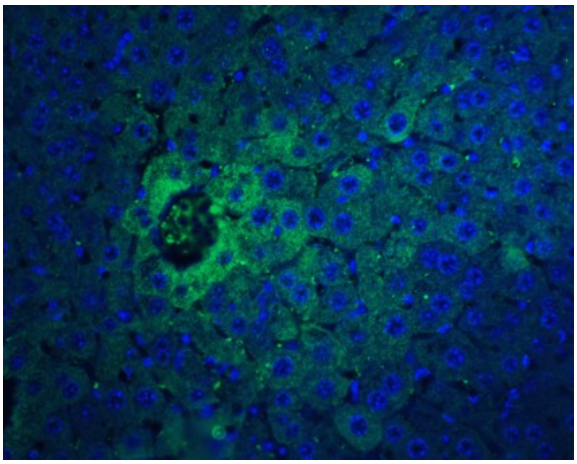
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

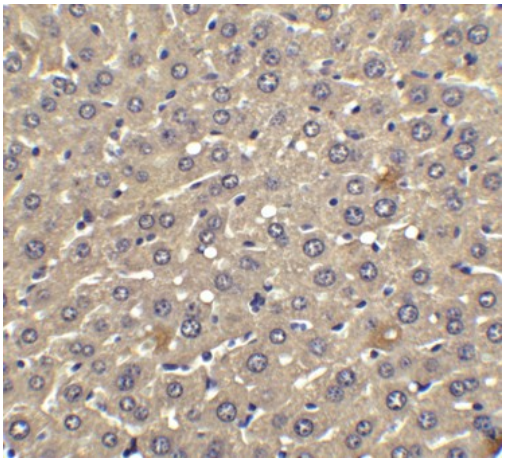
Shipping Condition:	Wet Ice
Storage Condition:	Antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.

Expiration: Expiration date is one (1) year from date of receipt.

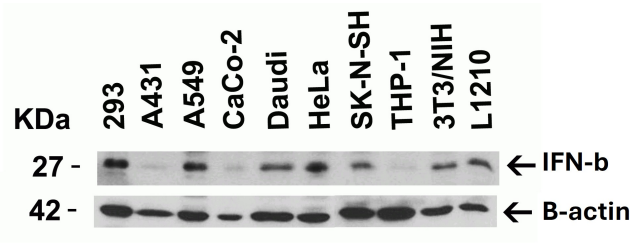
Images



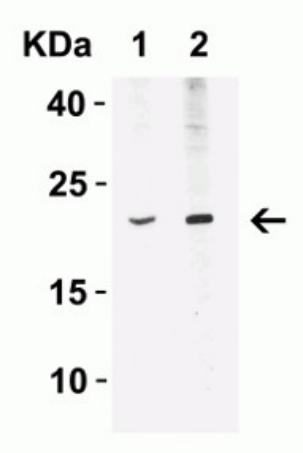
Immunofluorescence Microscopy
Immunofluorescence Validation of IFN-beta. Immunofluorescent analysis of 4% paraformaldehyde-fixed mouse liver tissue labeling IFN-beta at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).



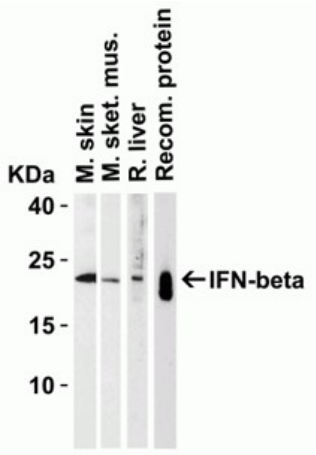
Immunohistochemistry
Immunohistochemistry Validation of IFN-beta. Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-IFN-beta antibody at 2.5 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a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



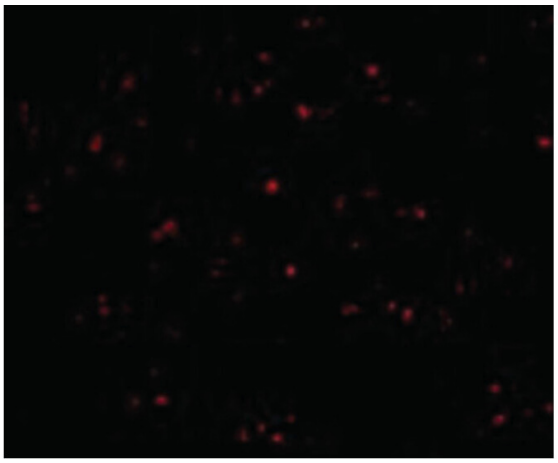
Western Blot
Western Blot using IFN beta. Loading: 15 µg of human and mouse cell lysates per lane. Antibodies: IFN-beta (4 µg/mL), (5 µg/mL) and beta-actin (1 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



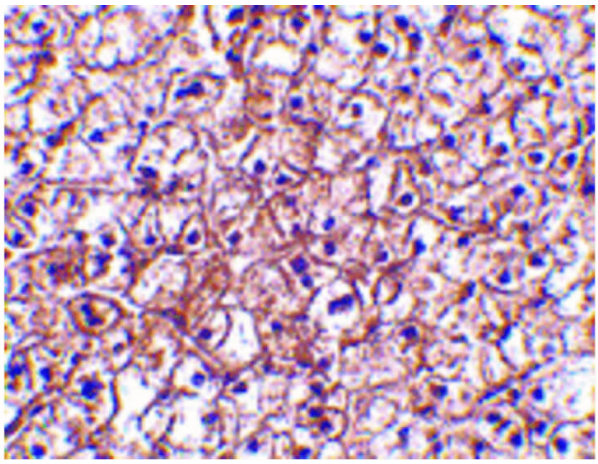
Western Blot
Western Blot Validation. Loading: 15 µg of mouse A20 lysates per lane. Antibodies: IFN-beta (Lane 1: 5 µg/mL and Lane 2: 10 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot
Western Blot Validation. Loading: 15 µg of lysates per lane. Antibodies: IFN-beta (4 µg/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of IFN-b antibody. Tissue: Human liver cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: IFN-b antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: IFN-b is nuclear and occasionally cytoplasmic. Staining: IFN-b as a red fluorescent signal.



Immunohistochemistry
Immunohistochemistry of IFN-b antibody. Tissue: Human liver tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: IFN-b antibody at 5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: IFN-b is nuclear and cytoplasmic. Staining: IFN-b as precipitated red signal with hematoxylin purple nuclear counterstain.



Western Blot
Western Blot of IFN-b antibody. Lane 1: A20 cell lysate at 5 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 22.2 kDa, 29 kDa for IFN-b.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.