

Datasheet for 600-401-DE5**NPTX2 Antibody****Overview**

Description:	Anti-NPTX2 (RABBIT) Antibody - 600-401-DE5
Item No.:	600-401-DE5
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Neuronal pentraxin (NPTX) 2 was initially identified as a member of the pentraxin family having high homology to NPTX1. Unlike NPTX1 however, NPTX2 is expressed in testes, pancreas, liver, heart, skeletal muscle as well as brain. NPTX2 possesses the lectin properties common to the pentraxin family, promotes neurite outgrowth, and is rapidly regulated by neuronal activity. NPTX1 and NPTX2 form heterocomplexes that contribute to both activity-independent and -dependent excitatory synaptogenesis. Recently, NPTX2 has been found to be highly upregulated in Parkinsonian substantia nigra and localizes to Lewy bodies and Lewy neurites in sporadic Parkinson's disease (PD), suggesting that it is involved in the pathway dysregulation that underlies PD. This NPTX2 antibody is predicted to be specific to NPTX2 and not recognize NPTX1.
Synonyms:	NPTX2 Antibody, NP2, NARP, NP-II, Neuronal pentraxin-2, Neuronal pentraxin II, NP2
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	NPTX2
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-NPTX2 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 16 amino acid synthetic peptide near the internal region of the human NPTX2.
Purity/Specificity:	Anti-NPTX2 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with NPTX2 from other sources has not been determined.
Relevant Links:	• UniProtKB - P47972 • GeneID - 4885 • NCBI - NP_002514

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-NPTX2 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 47 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:	1:5,000 - 1:10,000
IF:	20 µg/mL
IHC:	5 µg/mL
WB:	0.5-1 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

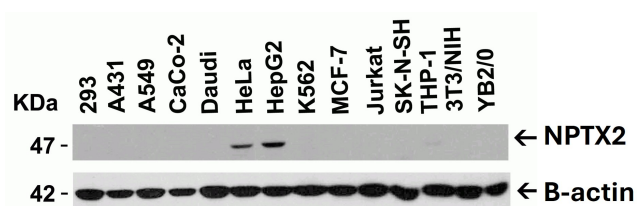
Shipping & Handling

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

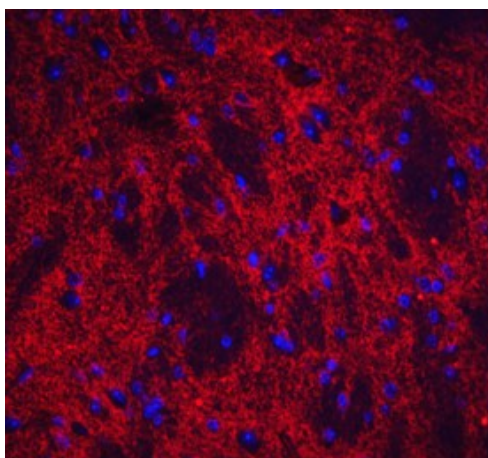
Expiration: Expiration date is one (1) year from date of receipt.

Images



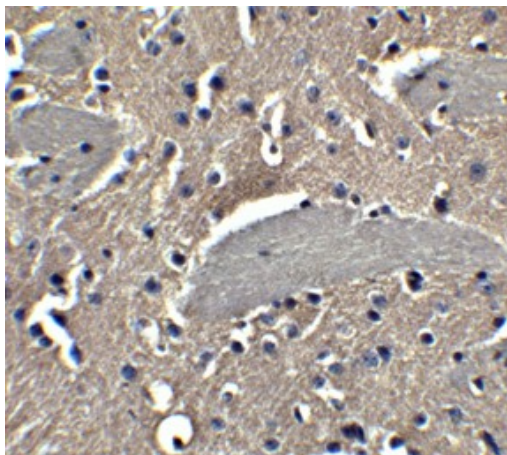
Western Blot

Western Blot using NPTX. Loading: 15 µg of lysates per lane. Antibodies: NPTX2 (2 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.



Immunofluorescence Microscopy

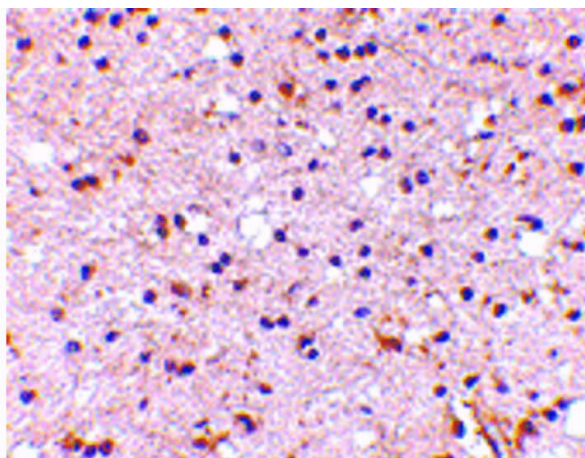
Immunofluorescence Validation of NPTX2. Immunofluorescent analysis of 4% paraformaldehyde-fixed mouse brain tissue labeling NPTX2 at 20 µg/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red) and DAPI staining (blue).



Immunohistochemistry

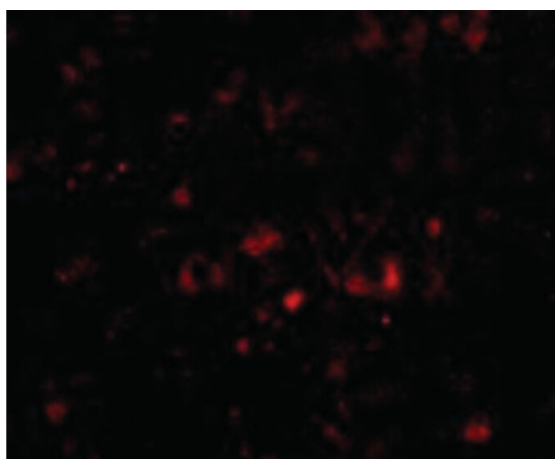
Immunohistochemistry Validation of NPTX2.

Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-NPTX2 antibody at 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.



Immunohistochemistry

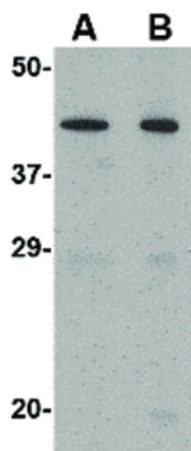
Immunohistochemistry of NPTX2 antibody. Tissue: Human brain tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: NPTX2 antibody at 5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: NPTX2 is nuclear and occasionally cytoplasmic. Staining: NPTX2 as a precipitated red signal with hematoxylin purple nuclear counterstain.



Immunofluorescence Microscopy

Immunofluorescence Microscopy of NPTX2 antibody.

Tissue: Human brain cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: NPTX2 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. Staining: NPTX2 as a red fluorescent signal.

**Western Blot**

Western Blot of NPTX2 antibody. Lane A: Mouse brain tissue lysate at 0.5 µg/mL. Lane B: Mouse brain tissue lysate at 1 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: 47.0 kDa, ~45 kDa for NPTX2.

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.