Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 600-401-DL2

PEN2 Antibody

Overview

Description:	Anti-PEN2 (RABBIT) Antibody - 600-401-DL2
Item No.:	600-401-DL2
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	PEN2, in addition to presenilin, nicastrin, and APH-1 forms the gamma-secretase protein complex, a membrane-bound aspartyl protease that can cleave certain proteins at peptide bonds buried within the hydrophobic environment of the lipid bilayer. This cleavage is responsible for a key step in signaling from several cell-surface receptors and is thought to be required for the generation of the neurotoxic amyloid peptides that are central to the pathogenesis of Alzheimer's disease. Like the tumor necrosis factor-alpha-converting enzyme (TACE) and the beta-site cleavage enzyme (BACE) protease families, gamma-secretase will cleave the amyloid precursor protein (APP), but within the intramembrane region of APP, resulting in either the non-toxic p3 (from the alpha and gamma cleavage site) or the toxic Abeta amyloid peptide (from the beta and gamma cleavage site). It is thought that accumulation of the Abeta peptide is the precursor to Alzheimer's disease.
Synonyms:	PEN2 Antibody, PEN2, PEN-2, MDS033, MSTP064, PEN2, Gamma-secretase subunit PEN-2, Presenilin enhancer protein 2
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	PSENEN
Reactivity:	Human, Mouse, Rat

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-PEN2 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 13 amino acid synthetic peptide from near the N-terminus of human PEN2.
Purity/Specificity:	Anti-PEN2 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with PEN2 from other sources has not been determined.
Relevant Links:	• UniProtKB - Q9NZ42 • GeneID - 55851 • NCBI - NP_758844

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-PEN2 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 12 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:	1:5000 - 1:10000
IF:	20 µg/mL
IHC:	2.5 µg/mL
WB:	0.5-1 µg/mL

Formulation

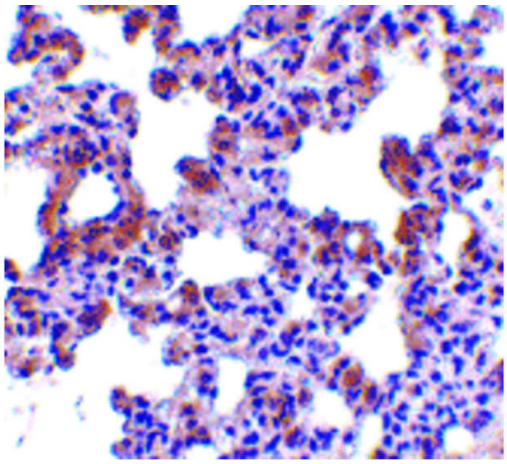
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

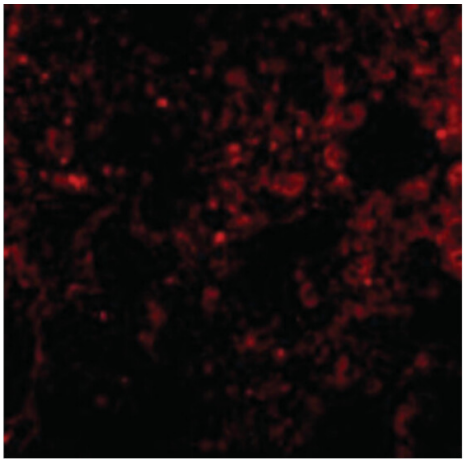
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

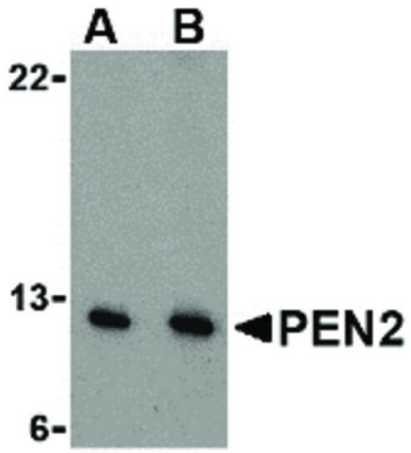
Images



Immunohistochemistry
Immunohistochemistry of PEN2 antibody. Tissue: rat lung tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: PEN2 antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: PEN2 is located in the endoplasmic reticulum, golgi apparatus, and cell membrane. Staining: PEN2 is stained with hematoxylin purple nuclear counterstain.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of PEN2 antibody. Cell Type: rat lung cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: PEN2 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: PEN2 is located in the endoplasmic reticulum, golgi apparatus, and cell membrane. Staining: PEN2 as red fluorescent signal.



Western Blot

Western Blot of PEN2 antibody in A-20 cell lysate. Lane A: PEN2 antibody at 0.5 µg/mL. Lane B: PEN2 antibody at 1 µg/mL. Load: 35 µg per lane. Primary antibody: PEN2 antibody at designated concentrations for overnight at 4°C. 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: 12 kDa, 11 kDa for PEN2. Other band(s): PEN2 splice variants and isoforms.

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.