Order online now!

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

Datasheet for 600-401-J54

Beta Amyloid 42 Antibody

Overview

Description:	Anti-Beta Amyloid 42 (RABBIT) Antibody - 600-401-J54
Item No.:	600-401-J54
Size:	50 µg
Applications:	ELISA, WB
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:	Beta Amyloid functions as a cell surface receptor and performs physiological functions on the surface of neurons relevant to neurite growth, neuronal adhesion and axonogenesis. It is expressed in all fetal tissues with the highest levels located in the brain, kidney, heart and spleen tissue. It is involved in cell mobility, transcription regulation via protein-protein interactions and copper homeostasis/oxidative stress through copper ion reduction. The copper-metallated APP induces neuronal death directly in vitro, or is potentiated through Cu2+ mediated low-density lipoprotein oxidation. It has binding capabilities via its C-terminus for transient metals such as copper, zinc and iron. It binds APBB1-KAT5 to promote transcription activation and inhibits Notch signaling through interaction with Numb. It also promotes tau aggregation and TPK II-mediated phosphorylation. Anti-Beta Amyloid 42 regulates neurite outgrowth by binding components in the cellular matrix such as heparin, collagen I and amyloid-beta peptide, leading to mitochondrial dysfunction in cultured cortical neurons. Defects in APP cause Alzheimer disease type 1 and cerebral amyloid angiopathy. This antibody is ideal for researchers interested in Cancer or Neuroscience research.
Synonyms:	rabbit anti-Beta Amyloid 42 Antibody, ß-amyloid 42, Amyloid beta A4 protein, Alzheimer disease amyloid protein, Beta amyloid, A-beta, ABPP, APPI, Alzheimer disease amyloid protein, Cerebral vascular amyloid peptide, Protease nexin-II
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	APP
Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Beta Amyloid 42 affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the C-terminus of AB42.
Purity/Specificity:	Anti-Beta Amyloid 42 was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest reactivity with human, sheep, rabbit, canine, bovine, pig, guinea pig, and monkey based on 100% sequence homology. This antibody will not react with AB40. Cross-reactivity with Beta Amyloid from other sources has not been determined.
Relevant Links:	• NCBI - NP_000475.1 • UniProtKB - P05067

Application Details

Tested Applications:	ELISA, WB
Application Note:	Anti-Beta Amyloid 1-42 antibody has been tested by ELISA and Western Blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~86kDa corresponding to the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1: 10,000
WB:	1ug/ml

Formulation

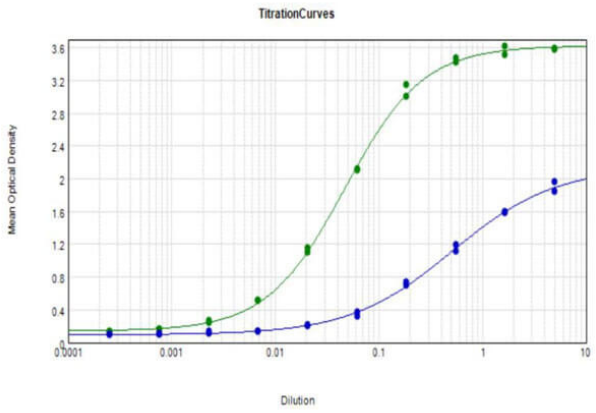
Physical State:	Liquid (sterile filtered)
Concentration:	1.0mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

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



ELISA
ELISA results of purified Polyclonal anti-beta amyloid 42 antibody tested against BSA-conjugated beta amyloid 42 peptide (green) and BSA-conjugated beta amyloid 40 peptide (blue). Each well was coated in duplicate with 0.1µg of conjugate. The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using Blocking buffer (p/n MB-060), Goat anti-Rabbit IgG HRP conjugated (611-103-122), and TMB substrate (p/n TMBM-1000).

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.