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Datasheet for 600-401-X54

AAK1 Antibody

Overview

Description:	Anti-AAK1 (RABBIT) Antibody - 600-401-X54
Item No.:	600-401-X54
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	AP2-associated protein kinase 1 (Aak1) is a member of the Ark1/Prk1 subfamily of Ser/Thr protein kinases that are thought to regulate endocytosis by phosphorylating the accessory endocytic components. Aak1 interacts with and phosphorylates the mu2 subunit of the AP-2 complex, which promotes binding of the AP-2 to tyrosine based (Yxxphi) internalization motif-containing receptors and subsequent receptor endocytosis. At least two isoforms of Aak1 are known to exist; the longer isoform contains an extended carboxy-terminus that contains an additional clathrin-binding domain. Overexpression of this long isoform or Aak1 depletion by RNA interference impairs transferrin recycling from the early/sorting endosome, suggesting that Aak1 functions at multiple steps of the endosomal pathway by regulating transferrin internalization and its recycling back to the plasma membrane.
Synonyms:	Aak1 Antibody, KIAA1048, AP2-associated protein kinase 1, Adaptor-associated kinase 1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	AAK1
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-Aak1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 20 amino acid synthetic peptide near the N-terminus of the human Aak1.
Purity/Specificity:	Anti-Aak1 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with Aak1 from other sources has not been determined.
Relevant Links:	• UniProtKB - Q2M2I8 • GeneID - 22848 • NCBI - NP_055726

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-Aak1 Antibody has been tested for use in ELISA, Immunocytochemistry, Immunofluorescence and Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~104 kDa in size corresponding to Aak1 protein by Western Blotting in 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 - 1:20,000
IF:	20 µg/mL
WB:	1-2 µg/mL

Formulation

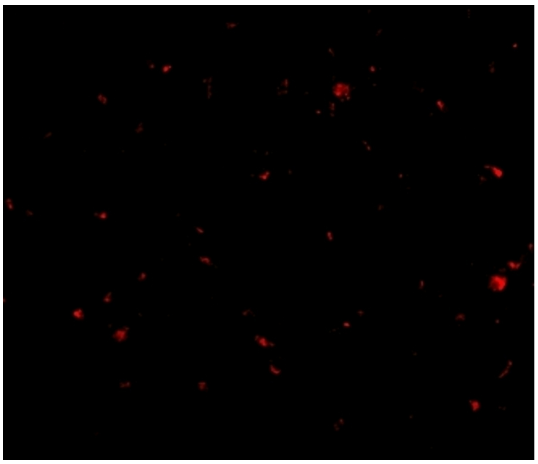
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

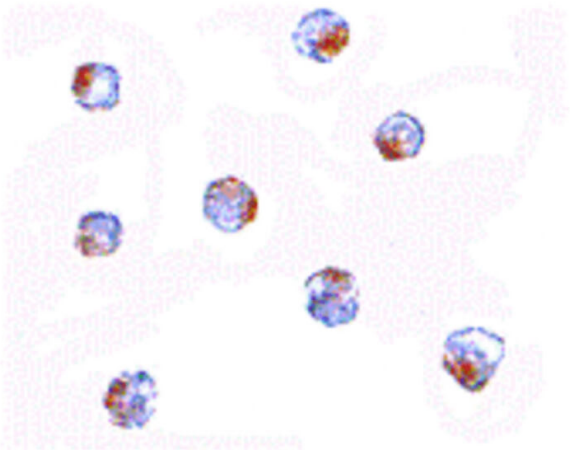
Shipping Condition:	Dry Ice

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.

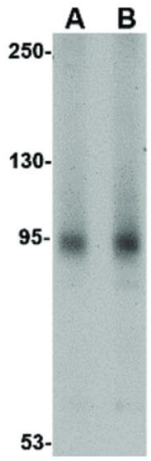
Images



Immunofluorescence Microscopy
Immunofluorescence of Aak1 in human brain tissue with aak1 antibody at 20 µg/mL.



Immunocytochemistry
Immunocytochemistry of Aak1 antibody. Tissue: A-20. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Aak1 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: Aak1 is nuclear and occasionally cytoplasmic. Staining: Aak1 as a precipitated brown signal with hematoxylin purple counterstain.



Western Blot

Western Blot of Aak1 antibody. Lane A: A-20 cell lysate at 1 µg/mL. Lane B: A-20 cell lysate at 2 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: 103.8 kDa, ~95 kDa for Aak1.

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.