

Datasheet for 600-401-AA4**CAD Antibody****Overview**

Description:	Anti-CAD (RABBIT) Antibody - 600-401-AA4
Item No.:	600-401-AA4
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Apoptosis is related to many diseases and induced by a family of cell death receptors and their ligands. Cell death signals are transduced by death domain containing adapter molecules and members of the caspase family of proteases. These death signals finally cause the degradation of chromosomal DNA by activated DNase. A mouse DNase that causes DNA fragmentation was identified recently and designated CAD (for caspase activated deoxyribonuclease). The human homologue of mouse CAD was more recently identified by two groups independently and termed CPAN and DFF40. Human DFF45 and its mouse homologue ICAD are the inhibitors of CPAN/DFF40 and CAD, respectively. Upon cleavage of DFF45/ICAD by activated caspase, DFF40/CAD is released and activated and eventually causes the degradation of DNA in the nuclei. Activation of CAD/DFF40, which causes DNA degradation, is the hallmark of apoptotic cell death.
Synonyms:	DFF40 Antibody, CAD, CPAN, DFF2, DFF-40, Didff, 5730477D02Rik, Cad, DNA fragmentation factor subunit beta, CAD, Caspase-activated deoxyribonuclease, Caspase-activated DNase, Caspase-activated nuclease, DNA fragmentation factor 40 kDa subunit
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	DFFB
Reactivity:	Mouse, Rat

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-CAD antibody was prepared from whole rabbit serum produced by repeated immunizations with a peptide corresponding to 17 amino acids near the internal region of murine CAD.
Purity/Specificity:	Anti-CAD Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with CAD from other sources has not been determined.
Relevant Links:	• UniProtKB - O76075 • GeneID - 1677 • NCBI - NP_001307061.1

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-CAD 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 39 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:	1:20,000
IF:	5 µg/mL
IHC:	5 µg/mL
WB:	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

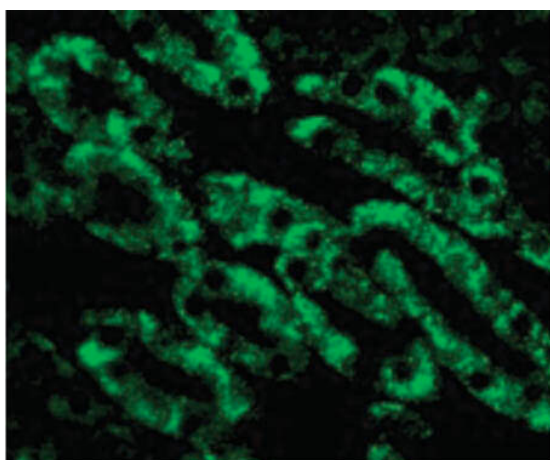
Shipping & Handling

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.

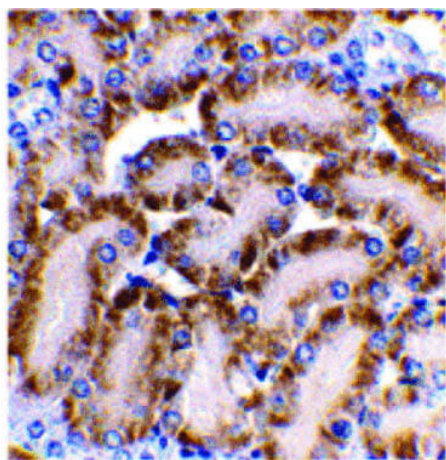
Expiration: Expiration date is one (1) year from date of receipt.

Images



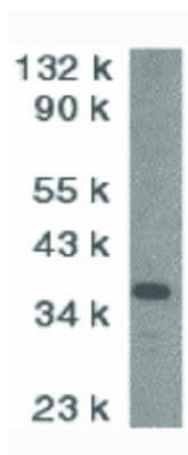
Immunofluorescence Microscopy

Immunofluorescence Microscopy of CAD antibody. Tissue: Mouse kidney. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: CAD antibody at 10 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: CAD is nuclear and cytoplasmic. Staining: CAD as green fluorescent signal.



Immunohistochemistry

Immunohistochemistry of CAD antibody. Tissue: Mouse kidney tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: CAD antibody at 2 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: CAD is nuclear and cytoplasmic. Staining: CAD as precipitated brown signal with hematoxylin blue nuclear counterstain.

**Western Blot**

Western Blot of CAD antibody. Lane 1: Mouse kidney tissue lysate Load: 2 µg per lane. Primary antibody: CAD antibody at 1:1000 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: 39.4 kDa, 38 kDa for CAD.

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.