

**Datasheet for 600-401-AV1****DFF40 Antibody****Overview**

|                      |                                            |
|----------------------|--------------------------------------------|
| <b>Description:</b>  | Anti-DFF40 (RABBIT) Antibody - 600-401-AV1 |
| <b>Item No.:</b>     | 600-401-AV1                                |
| <b>Size:</b>         | 100 µg                                     |
| <b>Applications:</b> | ELISA, IF, IHC, WB                         |
| <b>Reactivity:</b>   | Human, Mouse, Rat                          |
| <b>Host Species:</b> | Rabbit                                     |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | 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 three groups independently and termed CPAN, DFF40, and human CAD, respectively. DFF45/ICAD is the inhibitory protein of DFF40/CAD and forms complex with DFF40/CAD. 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 DFF40/CAD, which causes DNA degradation, is the hallmark of apoptotic cell death. |
| <b>Synonyms:</b>     | DFF40 Antibody, CAD, CPAN, 40kDa, DFF40, Didff, 5730477D02Rik, Cad, DNA fragmentation factor subunit beta, Caspase-activated deoxyribonuclease, CAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

**Target Details**

|                    |                   |
|--------------------|-------------------|
| <b>Gene Name:</b>  | Dfffb             |
| <b>Reactivity:</b> | Human, Mouse, Rat |

|                            |                                                                                                                                                                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen Type:</b>     | Conjugated Peptide                                                                                                                                                                                                                        |
| <b>Immunogen:</b>          | Anti-DFF40 antibody was prepared from whole rabbit serum produced by repeated immunizations with a peptide corresponding to amino acids near the internal region of murine CAD. The sequence differs from human DFF40 by two amino acids. |
| <b>Purity/Specificity:</b> | Anti-DFF40 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with DFF40 from other sources has not been determined.                                                           |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">UniProtKB - O54788</a></li><li>• <a href="#">GeneID - 13368</a></li><li>• <a href="#">NCBI - NP_031885</a></li></ul>                                                                  |

## Application Details

|                             |                                                                                                                                                                                                                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b> | ELISA, IF, IHC, WB                                                                                                                                                                                                                                                                        |
| <b>Application Note:</b>    | Anti-DFF40 Antibody has been tested for use in ELISA, Western Blotting, Immunocytochemistry, 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. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                           |
| <b>ELISA:</b>               | 1:5,000                                                                                                                                                                                                                                                                                   |
| <b>IF:</b>                  | 20 µg/mL                                                                                                                                                                                                                                                                                  |
| <b>IHC:</b>                 | 5 µg/mL                                                                                                                                                                                                                                                                                   |
| <b>WB:</b>                  | 0.5 µg/mL                                                                                                                                                                                                                                                                                 |

## Formulation

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

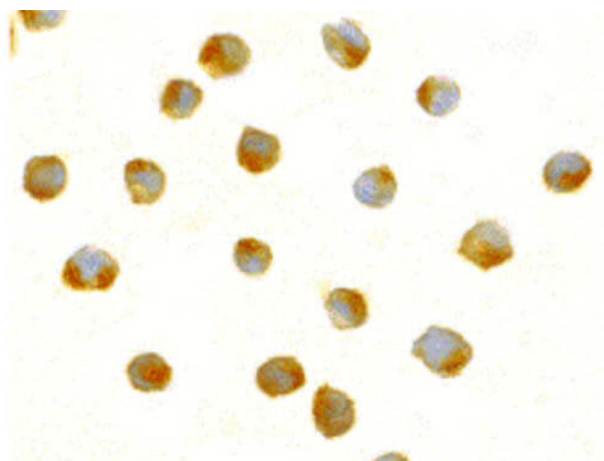
## Shipping & Handling

|                            |         |
|----------------------------|---------|
| <b>Shipping Condition:</b> | Wet Ice |
|----------------------------|---------|

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

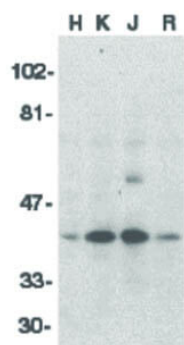
**Expiration:** Expiration date is one (1) year from date of receipt.

## Images



### Immunocytochemistry

Immunocytochemistry of DFF40 antibody. Cells: Jurkat cells. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: DFF40 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: DFF40 is nuclear and cytoplasmic. Staining: DFF40 as precipitated brown signal with hematoxylin blue nuclear counterstain.



### Western Blot

Western Blot of DFF40 antibody. Lane 1: HeLa whole cell lysate. Lane 2: K562 whole cell lysate. Lane3: Jurkat whole cell lysate. Lane4: Raji whole cell lysate. Load: 35 µg per lane. Primary antibody: DFF40 antibody at 1:500 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, 41 kDa for DFF40. Other band(s): DFF40 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.