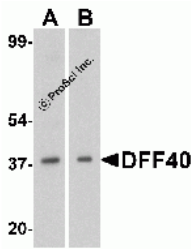
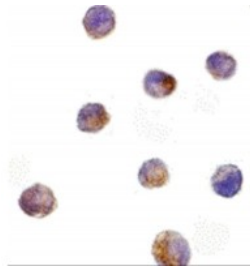


## DFF40 Antibody

Cat. No.: 2155



Western blot analysis of DFF40 in (A) K562 and (B) Jurkat cell lysate with DFF40 antibody at 1 ug/mL.



Immunocytochemistry of DFF40 in K562 cells with DFF40 antibody at 10 ug/mL.

## Ψ SPECIFICATIONS

<b>HOST SPECIES:</b>	Rabbit
<b>SPECIES REACTIVITY:</b>	Human, Mouse, Rat
<b>HOMOLOGY:</b>	Predicted species reactivity based on immunogen sequence: Bovine: (81%)
<b>IMMUNOGEN:</b>	DFF40 antibody was raised against a 16 amino acid peptide near the center of human DFF40.  The immunogen is located within amino acids 190 - 240 of DFF40.
<b>TESTED APPLICATIONS:</b>	ELISA, ICC, WB
<b>APPLICATIONS:</b>	DFF40 antibody can be used for detection of DFF40 /CAD by Western blot at 0.5 - 2 ug/mL. dilution. A 40 kDa band can be detected. Antibody can also be used for immunocytochemistry starting at 10 ug/mL.  Antibody validated: Western Blot in human samples and Immunocytochemistry in human samples. All other applications and species not yet tested.
<b>POSITIVE CONTROL:</b>	1) Cat. No. 1204 - K562 Cell Lysate  2) Cat. No. 1205 - Jurkat Cell Lysate  3) Cat. No. 17-004 - K-562 Cell Slide
<b>PREDICTED MOLECULAR WEIGHT:</b>	Predicted: 37 kDa  Observed: 38 kDa

<b>PURIFICATION:</b>	DFF40 Antibody is affinity chromatography purified via peptide column.
<b>CLONALITY:</b>	Polyclonal
<b>ISOTYPE:</b>	IgG
<b>CONJUGATE:</b>	Unconjugated
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	DFF40 Antibody is supplied in PBS containing 0.02% sodium azide.
<b>CONCENTRATION:</b>	batch dependent
<b>STORAGE CONDITIONS:</b>	DFF40 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

## Ψ ADDITIONAL INFO

<b>OFFICIAL SYMBOL:</b>	Dfffb
<b>ALTERNATE NAMES:</b>	DFF40 Antibody: CAD, CPAN, 40kDa, DFF40, Didff, 5730477D02Rik, Cad, DNA fragmentation factor subunit beta, Caspase-activated deoxyribonuclease, CAD
<b>ACCESSION NO.:</b>	NP_004393
<b>PROTEIN GI NO.:</b>	160948620
<b>GENE ID:</b>	13368
<b>USER NOTE:</b>	Optimal dilutions for each application to be determined by the researcher.

## Ψ BACKGROUND AND REFERENCES

<b>BACKGROUND:</b>	<p>DFF40 Antibody: 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.</p>
<b>REFERENCES:</b>	<ol style="list-style-type: none"><li>1) Enari M, Sakahira H, Yokoyama H, Okawa K, Iwamatsu A, Nagata S. A caspase-activated DNase that degrades DNA during apoptosis, and its inhibitor ICAD. <i>Nature</i> 1998;391:43-50</li><li>2) Sakahira H, Enari M, Nagata S. Cleavage of CAD inhibitor in CAD activation and DNA degradation during apoptosis. <i>Nature</i> 1998;391:96-99</li><li>3) Halenbeck R, MacDonald H, Roulston A, Chen TT, Conroy L, Williams LT. CPAN, a human nuclease regulated by the caspase-sensitive inhibitor DFF45. <i>Curr Biol</i> 1998;8:537-40</li><li>4) Liu X, Li P, Widlak P, Zou H, Luo X, Garrard WT, Wang X The 40-kDa subunit of DNA fragmentation factor induces DNA fragmentation and chromatin condensation during apoptosis. <i>Proc Natl Acad Sci USA</i> 1998;95:8461-6</li></ol>

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