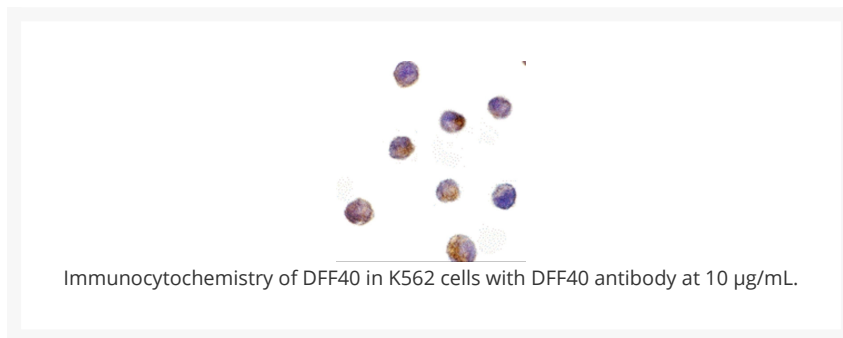
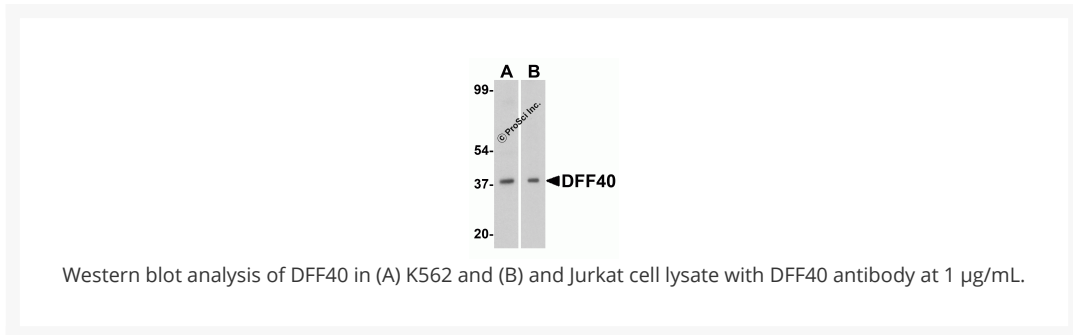




DFF40 Antibody

Cat. No.: 2155



Ψ Specifications

HOST SPECIES:	Rabbit
SPECIES REACTIVITY:	Human, Mouse, Rat
HOMOLOGY:	Predicted species reactivity based on immunogen sequence: Bovine: (81%)
IMMUNOGEN:	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.
TESTED APPLICATIONS:	ELISA, ICC, WB

APPLICATIONS:	DFF40 antibody can be used for detection of DFF40 /CAD by Western blot at 0.5 - 2 µg/mL dilution. A 40 kDa band can be detected. Antibody can also be used for immunocytochemistry starting at 10 µg/mL. Antibody validated: Western Blot in human samples and Immunocytochemistry in human samples. All other applications and species not yet tested.
POSITIVE CONTROL:	1) Cat. No. 1204 - K562 Cell Lysate 2) Cat. No. 1205 - Jurkat Cell Lysate 3) Cat. No. 17-004 - K-562 Cell Slide
PREDICTED MOLECULAR WEIGHT:	Predicted: 37 kDa Observed: 38 kDa

Ψ Properties

PURIFICATION:	DFF40 Antibody is affinity chromatography purified via peptide column.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated
PHYSICAL STATE:	Liquid
BUFFER:	DFF40 Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/ml
STORAGE CONDITIONS:	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

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

Ψ Background and References

BACKGROUND:	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.
REFERENCES:	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. Nature 1998;391:43-50
	2) Sakahira H, Enari M, Nagata S. Cleavage of CAD inhibitor in CAD activation and DNA degradation during apoptosis. Nature 1998;391:96-99
	3) Halenbeck R, MacDonald H, Roulston A, Chen TT, Conroy L, Williams LT. CPAN, a human nuclease regulated by the caspase-sensitive inhibitor DFF45. Curr Biol 1998;8:537-40
	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. Proc Natl Acad Sci USA 1998;95:8461-6

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