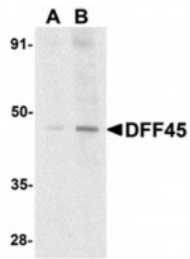




## DFF45 Antibody

Cat. No.: 1148



Western blot analysis of DFF45 in HeLa cell lysate with DFF45 antibody at (A) 1 and (B) 2 ug/mL.

## Ψ SPECIFICATIONS

<b>HOST SPECIES:</b>	Rabbit
<b>SPECIES REACTIVITY:</b>	Human
<b>IMMUNOGEN:</b>	DFF45 antibody was raised against a 20 amino acid peptide near the amino terminus of human DFF45. The immunogen is located within the first 50 amino acids of DFF45.
<b>TESTED APPLICATIONS:</b>	ELISA, WB
<b>APPLICATIONS:</b>	DFF45 antibody can be used for detection of DFF45, DFF35, and one the cleaved fragment by Western blot at 1:1000 to 1:2000 dilution. 45 and 35 kDa bands can be detected in non-apoptotic cells. Antibody validated: Western Blot in human samples. All other applications and species not yet tested.
<b>POSITIVE CONTROL:</b>	1) Cat. No. 1205 - Jurkat Cell Lysate
<b>PREDICTED MOLECULAR WEIGHT:</b>	45 and 35 kDa

<b>PURIFICATION:</b>	DFF45 Antibody is Antibody is DEAE purified.
<b>CLONALITY:</b>	Polyclonal
<b>ISOTYPE:</b>	IgG
<b>CONJUGATE:</b>	Unconjugated
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	DFF45 Antibody is supplied in PBS containing 0.02% sodium azide.
<b>CONCENTRATION:</b>	1 mg/mL
<b>STORAGE CONDITIONS:</b>	DFF45 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>	DFFA
<b>ALTERNATE NAMES:</b>	DFF45 Antibody: DFF1, ICAD, DFF-45, DFF1, DFF45, H13, DNA fragmentation factor subunit alpha, DNA fragmentation factor 45 kDa subunit
<b>ACCESSION NO.:</b>	NP_004392
<b>PROTEIN GI NO.:</b>	4758148
<b>GENE ID:</b>	1676
<b>USER NOTE:</b>	Optimal dilutions for each application to be determined by the researcher.

## Ψ BACKGROUND AND REFERENCES

<b>BACKGROUND:</b>	<p>DFF45 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 human 45 kDa DNA fragmentation factor (DFF45) was identified recently that was cleaved by caspase-3 during apoptosis. Mouse homologue of human DFF45 was identified as a DNase inhibitor designated ICAD. DFF45/ICAD have short forms that were termed DFF35 and ICADs, respectively. Upon cleavage of DFF45/ICAD, the caspase activated deoxyribonuclease (DFF40/CAD) is released and activated and eventually causes the degradation of DNA in the nuclei. Therefore, the cleavage of DFF45/ICAD, which causes DFF40/CAD activation and DNA degradation, is the hallmark of apoptotic cell death.</p>
<b>REFERENCES:</b>	<p>1) Liu X, Zou H, Slaughter C, Wang X. DFF, a heterodimeric protein that functions downstream of caspase-3 to trigger DNA fragmentation during apoptosis. <i>Cell</i> 1997;89:175-184</p> <p>2) 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</p> <p>3) 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</p> <p>4) Gu J, Dong RP, Zhang C, McLaughlin DF, Wu MX, Schlossman SF. Functional interaction of DFF35 and DFF45 with caspase-activated DNA fragmentation nuclease DFF40. <i>J Biol Chem</i> 1999;274:20759-62</p>

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