

#9732
Store at -20C**DFF45/DFF35 Antibody**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	35, 45	Rabbit	#O00273	1676

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

DFF45/DFF35 Antibody detects endogenous levels of total full length DFF45 and/or full length DFF35. The antibody does not cross-react with related proteins.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp224 of human DFF45. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Human DFF45 and its mouse homologue ICAD function in normal cells as chaperones for caspase-activated deoxyribonuclease (DFF40 or CAD) during its synthesis (1). The association of DFF45 (or its isoform DFF35) with DFF40 inhibits the DNase activity of the latter (1-4). In vitro, DFF45 has been shown to be the target of several caspases, including caspase-3, -6, -7, -8 and granzyme B (3). In vivo, caspase-3 is believed to be the primary enzyme responsible for processing DFF45 and release of its carboxy-terminal fragment (3,5). The cleavage of DFF45 inactivates its inhibitory function on DFF40 and causes nuclear DNA degradation by DFF40, leading to cell death (6,7).

Background References

1. Enari, M. et al. (1998) *Nature* 391, 43-50.
2. Sakahira, H. et al. (1998) *Nature* 391, 96-99.
3. Wolf, B. B. et al. (1999) *J. Biol. Chem.* 274, 30651-30656.
4. Gu, J. et al. (1999) *J. Biol. Chem.* 274, 20759-20762.
5. Tang, D. and Kidd, V.J. (1998) *J. Biol. Chem.* 273, 28549-28552.
6. Liu, X. et al. (1999) *J. Biol. Chem.* 274, 13836-13840.
7. Zhang, J. et al. (1999) *J. Biol. Chem.* 274, 37450-37454.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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