

Anti-DFF45/35 (NT)

CATALOG No.: PX024A **SIZE:** 100 µg
 PX024B **SIZE:** 0.5 mg

BACKGROUND:

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 (1). Mouse homologue of human DFF45 was identified as a DNase inhibitor designated ICAD (2,3). DFF45/ICAD have short forms that were termed DFF35 and ICADs, respectively, (2,4). 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 (2-5). Therefore, the cleavage of DFF45/ICAD, which causes DFF40/CAD activation and DNA degradation, is the hallmark of apoptotic cell death.

SOURCE:

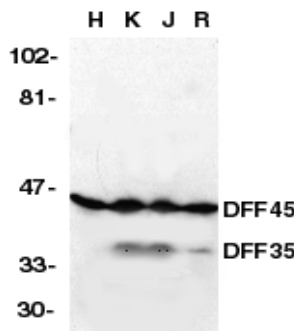
Rabbit anti-DFF45 (NT) polyclonal antibody was raised against a peptide corresponding to amino acids 2 to 21 of human DFF45 (1).

APPLICATION:

This polyclonal antibody can be used for detection of DFF45, DFF35, and one the cleaved fragment by Western blot at 1:1000 to 1:2000 dilution and for immunohistochemistry. Jurkat whole cell lysate can be used as positive control and 45 and 35 kDa bands can be detected in non-apoptotic cells. For research use only.

STORAGE:

It is supplied as purified IgG, 100 µg in 200 µl of PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of DFF45/35 in HeLa, (H), K562 (K), Jurkat (J), and Raji (R) whole cell lysate with anti-DFF45/35 (NT) at 1:1000 dilution.

REFERENCES:

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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. *J Biol Chem* 1999;274:20759-62
5. 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
6. Mukae N, Enari M, Sakahira H, Fukuda Y, Inazawa J, Toh H, Nagata S. Molecular cloning and characterization of human caspase-activated DNase. *Proc Natl Acad Sci USA* 1998;95:9123-8

CAUTION: NOT FOR USE IN HUMANS. FOR RESEARCH PURPOSES ONLY.



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