
Anti-DEF45/ICAD

Cat #: HM1111
Rabbit polyclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND

Apoptosis signals are transduced by death domain containing molecules and the Caspase family of proteases. The process is accompanied by shrinkage and fragmentation of the cells and nuclei and degradation of the chromosomal DNA by activated DNase. DNA fragmentation factor (DFF) is a heterodimeric protein of 40-kD (DFFB) and 45-kD (DFFA, DEF45) subunits. DFF becomes activated when DFF45 is cleaved by caspase-3. The cleaved fragments of DFF45 dissociate from DFFB, the active component of DFF. DFFB has been found to trigger both DNA fragmentation and chromatin condensation during apoptosis.

SPECIFICITY

This antibody specifically reacts with DEF45 of human, mouse and rat origin.

The antibody can be used in Western blotting, immunoprecipitation and immunohistochemistry.

Molecular Weight of DEF45: 45 kDa.
Western blotting positive controls: HeLa whole cell lysate.

IMMUNOGEN

Full-length recombinant human DEF45 protein.

STORAGE

This antibody is stable for 12 months when stored at 2-8°C.

REFERENCES

1. Salvesen, G.S., et al. 1997. Caspases: intracellular signaling by proteolysis. *Cell* 91: 443-446.
2. Liu, X., et al. 1997. DFF, a heterodimeric protein that functions downstream of caspase-3 to trigger DNA fragmentation during apoptosis. *Cell* 89: 175-184.
3. Sharif-Askari, E., Alam, A., Rheaume, E., Beresford, P.J., Scotto, C., Sharma, K., Lee, D., DeWolf, W.E., Nuttall, M.E., Lieberman, J. and ekaly, R.P. (2001) Direct cleavage of the human DNA fragmentation factor-45 by granzyme B induces caspase-activated DNase release and DNA fragmentation. *EMBO J.* 20, 3101-3113.
4. Fukushima, K., Kikuchi, J., Koshihara, S., Kigawa, T., Kuroda, Y. and Yokoyama, S. (2002) Solution structure of the DFF-C domain of DFF45/ICAD. A structural basis for the regulation of apoptotic DNA fragmentation. *J. Mol. Biol.* 321, 317-327.

5. Widlak, P., Lanuszewska, J., Cary, R.B. and Garrard, W.T. (2003) Subunit structures and stoichiometries of human DNA fragmentation factor proteins before and after induction of apoptosis. *J. Biol. Chem.* 278, 26915-26922.

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