



## Anti-DFF45 (CT)

(DNA fragmentation factor 45, caspase-activated Dnase)

CATALOG NO.: 54025

### 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 which was cleaved by caspase-3 during apoptosis (1). Mouse homologue of human DFF45 was identified as a DNase inhibitor designated ICAD (2,3). Upon cleavage of DFF45/ICAD, a 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 & REACTIVITY:

Rabbit anti-DFF45 polyclonal antibody was raised against a peptide corresponding to amino acids near the C-terminus of human DFF45. Anti-DFF45 reacts with DFF45 and one of the cleaved fragments of DFF45 and a band can be detected in non-apoptotic cells at the molecular weight of 45 kDa on western blot. Species reactivity includes human, while others are not tested.

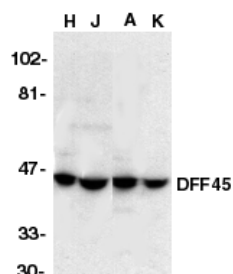
### APPLICATION:

The following concentration ranges are recommended starting points for this product.

WB: 0.5 – 1 µg/ml

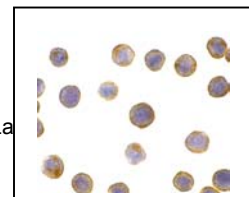
### IHC

Positive Control: HeLa whole cell lysate



Western blot analysis of DFF45 in HeLa (H), Jurkat (J), A431 (A), and K562 (K) whole cell lysate with anti-DFF45 at 0.5 µg/ml.

Immunocytochemistry of DFF45 in HeLa cells with anti-DFF45 at 5 µg/ml.



*This product is for in vitro research purposes only.*

### RELATED PRODUCTS:

HeLa Cell Lysate, Catalog No. **29517**

Anti-DFF40 (NT), Catalog No. **53430**

Anti-DFF45/35 (NT), Catalog No. **53431**

### STORAGE:

DFF45 antibody is supplied as purified IgG, in 1X PBS containing 0.05% Sodium Azide. Store at 2-8 °C for up to 1 year. Avoid repeated freeze thaw cycles.

### REFERENCES:

1. Liu, X. et al. *Cell* **89**, 175 (1997).
2. Enari, M. et al. *Nature* **391**, 43 (1998).
3. Sakahira, H. et al. *Nature* **391**, 96 (1998).
4. Liu, X. et al. *Proc. Natl. Acad. Sci. USA* **95**, 8461 (1998).
5. Mukae, N. et al. *Proc. Natl. Acad. Sci. USA* **95**, 9123 (1998).
6. Tang, D. et al. *J. Biol. Chem.* **273**, 28549 (1998).