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DFF45 Antibody
Catalog # ASC10022

Specification

DFF45 Antibody - Product Information

Application	**WB, ICC**
Primary Accession	O00273
Other Accession	NP_004392, 1676
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**45 kDa KDa**
Application Notes	**DFF45 antibody can be used for detection of DFF45 and one of the cleaved fragments of DFF45 by Western blot at at 0.5 - 1 µg/mL and for immunoprecipitation. A 45 kDa band can be detected in non-apoptotic cells. Antibody can also be used for immunocytochemistry starting at 5 µg/mL.**

DFF45 Antibody - Additional Information

Gene ID **1676**

Other Names
DFF45 Antibody: DFF1, ICAD, DFF-45, DFF1, DFF45, H13, DNA fragmentation factor subunit alpha, DNA fragmentation factor 45 kDa subunit, DNA fragmentation factor, 45kDa, alpha polypeptide

Target/Specificity
DFF45 antibody was raised against a 19 amino acid peptide near the carboxy terminus of human DFF45.

The immunogen is located within the last 50 amino acids of DFF45.

Reconstitution & Storage
DFF45 antibody can be stored at 4℃ for three months and -20℃, 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.

Precautions
DFF45 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

DFF45 Antibody - Protein Information

Name DFFA

Synonyms DFF1, DFF45

Function
Inhibitor of the caspase-activated DNase (DFF40).

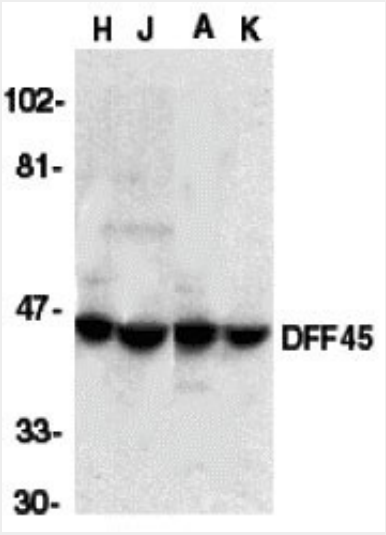
Cellular Location
Cytoplasm.

DFF45 Antibody - Protocols

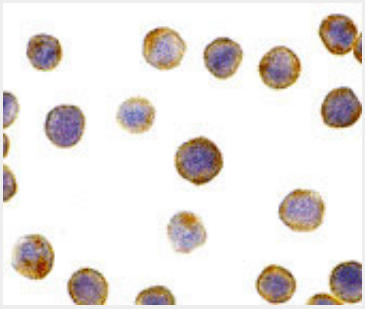
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DFF45 Antibody - Images



Western blot analysis of DFF45 in HeLa (H), Jurkat (J), A431 (A), and K562 (K) whole cell lysate with DFF45 antibody at 1:1000 dilution.



Immunocytochemistry of DFF45 in HeLa cells with DFF45 antibody at 5 µg/mL.

DFF45 Antibody - Background

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 which was cleaved by caspase-3 during apoptosis. Mouse homologue of human DFF45 was identified as a DNase inhibitor designated ICAD. 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. Therefore, the cleavage of DFF45/ICAD, which causes DFF40/CAD activation and DNA degradation, is the hallmark of apoptotic cell death.

DFF45 Antibody - References

Liu X, Zou H, Slaughter C, Wang X. DFF, a heterodimeric protein that functions downstream of caspase-3 to trigger DNA fragmentation during apoptosis. Cell 1997;89:175-184
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. Nature 1998;391:43-50
Sakahira H, Enari M, Nagata S. Cleavage of CAD inhibitor in CAD activation and DNA degradation during apoptosis. Nature 1998;391:96-99
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