

## Product datasheet for **CF500063**

### ICAD (DFFA) Mouse Monoclonal Antibody [Clone ID: OTI3F12]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI3F12
Applications:	IF, WB
Recommended Dilution:	WB 1:200~500, IF 1:100
Reactivity:	Human, Monkey
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human DFFA (NP_004392) produced in E.coli.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	36.3 kDa
Gene Name:	DNA fragmentation factor subunit alpha
Database Link:	<a href="#">NP_004392</a> <a href="#">Entrez Gene 713544 Monkey</a> <a href="#">Entrez Gene 1676 Human</a> <a href="#">O00273</a>



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**Background:**

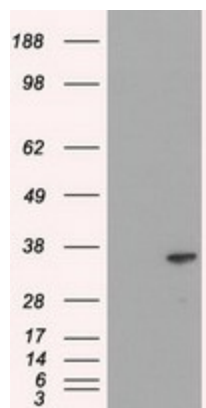
Apoptosis is a cell death process that removes toxic and/or useless cells during mammalian development. The apoptotic process is accompanied by shrinkage and fragmentation of the cells and nuclei and degradation of the chromosomal DNA into nucleosomal units. DNA fragmentation factor (DFF) is a heterodimeric protein of 40-kD (DFFB) and 45-kD (DFFA) subunits. DFFA is the substrate for caspase-3 and triggers DNA fragmentation during apoptosis. DFF becomes activated when DFFA is cleaved by caspase-3. The cleaved fragments of DFFA dissociate from DFFB, the active component of DFF. DFFB has been found to trigger both DNA fragmentation and chromatin condensation during apoptosis. Two alternatively spliced transcript variants encoding distinct isoforms have been found for this gene.

**Synonyms:**

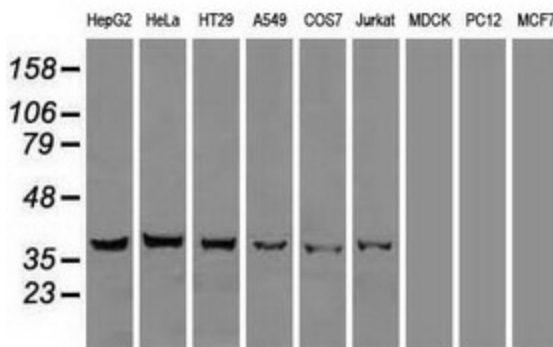
DFF-45; DFF1; ICAD

**Protein Pathways:**

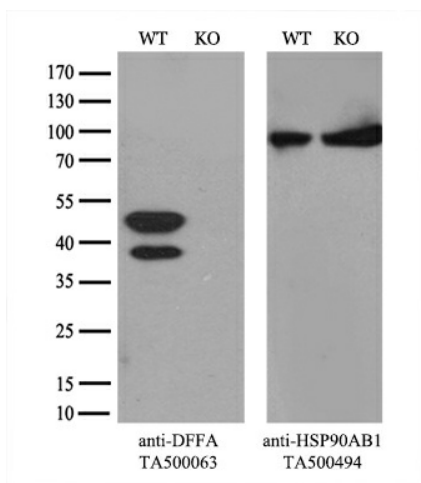
Apoptosis

**Product images:**


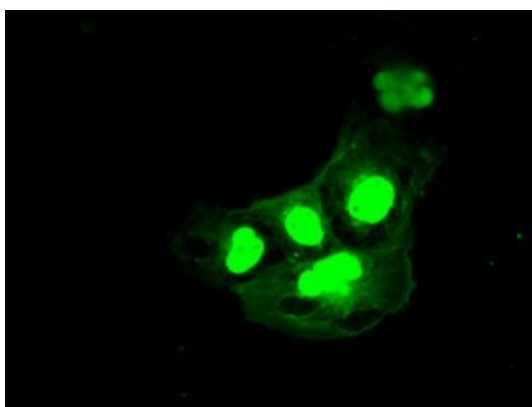
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY DFFA ([RC202879], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-DFFA. Positive lysates [LY418008] (100ug) and [LC418008] (20ug) can be purchased separately from OriGene.



Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-DFFA monoclonal antibody.



Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT, Cat# LC810HELA) and DFFA-Knockout HeLa cells (KO, Cat# [LC833352]) were separated by SDS-PAGE and immunoblotted with anti-DFFA monoclonal antibody [TA500063] (1:500). Then the blotted membrane was stripped and reprobed with anti-HSP90 antibody as a loading control.



Anti-DFFA mouse monoclonal antibody ([TA500063]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY DFFA ([RC202879]).