

Product Name: KD-Validated DFFA Recombinant Rabbit Monoclonal Antibody**Catalog #: KVAb00740**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 36.5kDa

Antigen Information

Gene Name	DFFA
Alternative Names	DFFA; DNA Fragmentation Factor Subunit Alpha; DFF-45; DFF45; ICAD; DFF1;
	DNA Fragmentation Factor, 45kDa, Alpha Polypeptide; DNA Fragmentation Factor 45KDa Subunit; Inhibitor Of CAD; DNA Fragmentation Factor, 45 KD, Alpha Polypeptide; DNA Fragmentation Factor, 45 KD, Alpha Subunit
Gene ID	1676.0
SwissProt ID	O00273
Immunogen	A synthesized peptide derived from human ICAD

Background

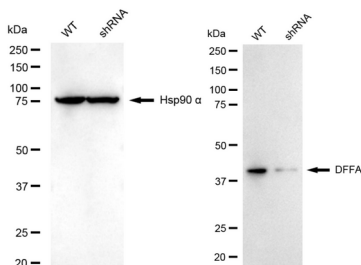
Apoptosis is a cell death process that removes toxic and/or useless cells during mammalian development. The apoptotic

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. [provided by RefSeq, Jul 2008]

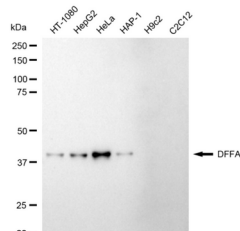
Research Area

Cell Biology, Epigenetics and Nuclear Signaling, Metabolism, Cancer

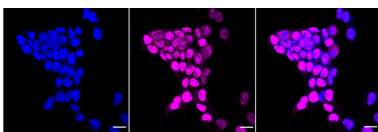
Image Data



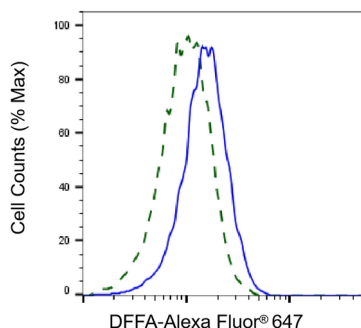
Western blotting analysis using DFFA antibody (KVA00740). DFFA expression in wild-type (WT) and DFFA shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with DFFA antibody (KVA00740, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



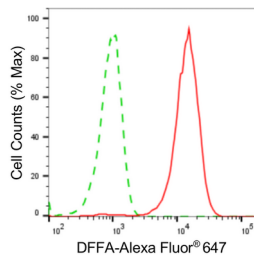
Western blotting analysis using DFFA antibody (KVA00740). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with DFFA antibody (KVA00740, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively. DFFA, DNA fragmentation factor subunit alpha.



Immunocytochemical staining of HeLa cells with DFFA antibody (KVA00740, 1:1,000). Nuclei were stained blue with DAPI; DFFA was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain: High. Scale bar: 20 µm.



Validation of DFFA knockdown using flow cytometry. Wild-type (WT, Blue) and knockdown (KD, Green) HeLa cells were stained with DFFA antibody (KVA00740, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of DFFA expression in HeLa cells using DFFA antibody (KVA00740, 1:2,000). Green, isotype control; red, DFFA.