SANTA CRUZ BIOTECHNOLOGY, INC.

FLASH (M-300): sc-9088

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Fas is a member of the tumor necrosis factor family of membrane receptors, which induces apoptosis by binding to its ligand, Fas-L. Fas mediates apoptosis through a group of proteins that bind to its intracellular "death" domain, including FADD. After binding to Fas, FADD binds to caspase-8, resulting in activation of caspase-8 and the initiation of the caspase-mediated apoptotic pathway. FLASH, for FLICE-associated huge protein, has been identified as an additional component of the Fas-FADD-caspase-8 complex, also referred to as the DISC complex. FLASH shares homology with the *C. elegans* CED-4 protein and the mammalian Apaf-1 protein, which are both involved in activating caspases. FLASH was shown to be required for activation of caspase-8 during Fas-mediated apoptosis.

REFERENCES

1. Itoh, N., et al. 1991. The polypeptide encoded by the cDNA for human cell surface antigen Fas can mediate apoptosis. Cell 66: 233-243.
2. Suda, T., et al. 1993. Molecular cloning and expression of the Fas ligand, a novel member of the tumor necrosis factor family. Cell 75: 1169-1178.

CHROMOSOMAL LOCATION

Genetic locus: CASP8AP2 (human) mapping to 6q15; Casp8ap2 (mouse) mapping to 4 A5.

SOURCE

FLASH (M-300) is a rabbit polyclonal antibody raised against amino acids 1663-1962 representing full length FLASH of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FLASH (M-300) is recommended for detection of FLASH of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FLASH siRNA (h): sc-43761, FLASH siRNA (m): sc-145198, FLASH shRNA Plasmid (h): sc-43761-SH, FLASH shRNA Plasmid (m): sc-145198-SH, FLASH shRNA (h) Lentiviral Particles: sc-43761-V and FLASH shRNA (m) Lentiviral Particles: sc-145198-V.

Molecular Weight of FLASH: 219 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, mouse heart extract: sc-2254 or HeLa + UV cell lysate: sc-2221.

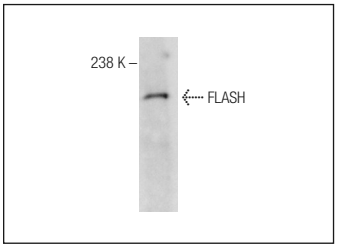
RESEARCH USE

For research use only, not for use in diagnostic procedures.

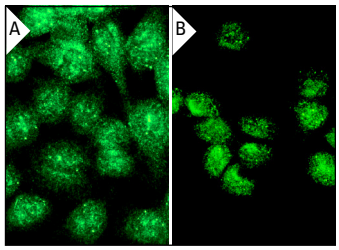
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



FLASH (M-300): sc-9088. Western blot analysis of FLASH expression in mouse heart tissue extract.



FLASH (M-300): sc-9088. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (**A**) and nuclear localization after UV exposure (**B**).

SELECT PRODUCT CITATIONS

1. Kino, T., et al. 2003. Tumor necrosis factor α receptor- and FAS-associated FLASH inhibit transcriptional activity of the glucocorticoid receptor by binding to and interfering with its interaction with p160 type nuclear receptor coactivators. J. Biol. Chem. 278: 3023-3029.
2. Barcaroli, D., et al. 2006. FLASH is an essential component of Cajal bodies. Proc. Natl. Acad. Sci. USA 103: 14802-14807.
3. Barcaroli, D., et al. 2006. FLASH is required for Histone transcription and S-phase progression. Proc. Natl. Acad. Sci. USA 103: 14808-14812.
4. Milovic-Holm, K., et al. 2007. FLASH links the CD95 signaling pathway to the cell nucleus and nuclear bodies. EMBO J. 26: 391-401.
5. Alm-Kristiansen, A.H., et al. 2008. FLASH acts as a co-activator of the transcription factor c-Myb and localizes to active RNA polymerase II foci. Oncogene 27: 4644-4656.
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8. Nalaskowski, M.M., et al. 2011. The inositol 5-phosphatase SHIP1 is a nucleo-cytoplasmic shuttling protein and enzymatically active in cell nuclei. Cell. Signal. 24: 621-628.
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10. Vilotti, S., et al. 2012. The PML nuclear bodies-associated protein TTRAP regulates ribosome biogenesis in nucleolar cavities upon proteasome inhibition. Cell Death Differ. 19: 488-500.
11. Neelsen, K.J., et al. 2013. Oncogenes induce genotoxic stress by mitotic processing of unusual replication intermediates. J. Cell Biol. 200: 699-708.