

AIFL (A-9): sc-376570

BACKGROUND

AIFL (apoptosis-inducing factor-like), also known as AIFM3 (apoptosis-inducing factor, mitochondrion-associated, 3), is a 605 amino acid protein that localizes to the mitochondrion and contains one Rieske domain. Expressed ubiquitously in tissues including liver, thymus, ovary, bone marrow and cerebral cortex, AIFL functions to induce apoptosis, specifically through a caspase-dependent pathway, and may also play a role in the modulation of mitochondrial membrane potential. Multiple isoforms of AIFL exist due to alternative splicing events. The gene encoding AIFL maps to human chromosome 22, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, neurofibromatosis type 2, autism and schizophrenia.

REFERENCES

1. Gilbert, F. 1998. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 22. Genet. Test.* 2: 89-97.
2. Susin, S.A., et al. 1999. Molecular characterization of mitochondrial apoptosis-inducing factor. *Nature* 397: 441-446.
3. Cande, C., et al. 2002. Apoptosis-inducing factor (AIF): a novel caspase-independent death effector released from mitochondria. *Biochimie* 84: 215-222.
4. Tsilchorozidou, T., et al. 2004. Constitutional rearrangements of chromosome 22 as a cause of neurofibromatosis 2. *J. Med. Genet.* 41: 529-534.
5. Urbano, A., et al. 2005. AIF suppresses chemical stress-induced apoptosis and maintains the transformed state of tumor cells. *EMBO J.* 24: 2815-2826.
6. Xie, Q., et al. 2005. Molecular cloning and characterization of a human AIF-like gene with ability to induce apoptosis. *J. Biol. Chem.* 280: 19673-19681.

CHROMOSOMAL LOCATION

Genetic locus: AIFM3 (human) mapping to 22q11.21.

SOURCE

AIFL (A-9) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of AIFL of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AIFL (A-9) is available conjugated to agarose (sc-376570 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376570 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376570 PE), fluorescein (sc-376570 FITC), Alexa Fluor® 488 (sc-376570 AF488), Alexa Fluor® 546 (sc-376570 AF546), Alexa Fluor® 594 (sc-376570 AF594) or Alexa Fluor® 647 (sc-376570 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376570 AF680) or Alexa Fluor® 790 (sc-376570 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

AIFL (A-9) is recommended for detection of AIFL of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for AIFL siRNA (h): sc-72467, AIFL shRNA Plasmid (h): sc-72467-SH and AIFL shRNA (h) Lentiviral Particles: sc-72467-V.

Molecular Weight of AIFL: 66 kDa.

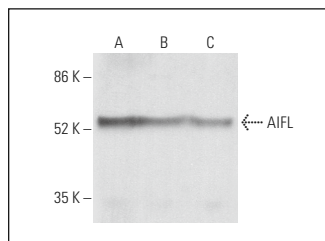
Positive Controls: Hep G2 cell lysate: sc-2227, COLO 205 whole cell lysate: sc-364177 or HEL 92.1.7 cell lysate: sc-2270.

RECOMMENDED SUPPORT REAGENTS

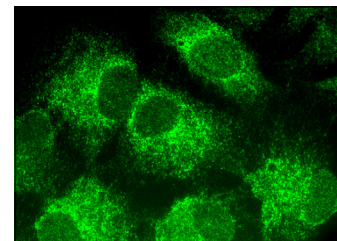
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



AIFL (A-9): sc-376570. Western blot analysis of AIFL expression in Hep G2 (A), COLO 205 (B) and HEL 92.1.7 (C) whole cell lysates.



AIFL (A-9): sc-376570. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.