

Fis1 (C-10): sc-376469

BACKGROUND

Fis1 localizes to the outer mitochondrial membrane and, along with dynamin-related protein (Drp1), participates in mitochondrial fission. Fission and fusion mechanisms regulate mitochondrial morphology within the cell. Fission frequency is determined by the level of Fis1 molecules at the mitochondrial surface. Fis1 contains a C-terminal domain, which is required for mitochondrial localization, and an N-terminal domain, which is necessary for mitochondrial fission. Fragmentation of the mitochondrial network by Fis1 leads to cytochrome c release and apoptosis. The mitochondrial fission mechanisms may be involved in positively and negatively regulating apoptosis.

CHROMOSOMAL LOCATION

Genetic locus: FIS1 (human) mapping to 7q22.1; Fis1 (mouse) mapping to 5 G2.

SOURCE

Fis1 (C-10) is a mouse monoclonal antibody raised against amino acids 1-152 representing full length Fis1 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.

Fis1 (C-10) is available conjugated to agarose (sc-376469 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376469 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376469 PE), fluorescein (sc-376469 FITC), Alexa Fluor® 488 (sc-376469 AF488), Alexa Fluor® 546 (sc-376469 AF546), Alexa Fluor® 594 (sc-376469 AF594) or Alexa Fluor® 647 (sc-376469 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376469 AF680) or Alexa Fluor® 790 (sc-376469 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Fis1 (C-10) is recommended for detection of Fis1 of mouse, rat and 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 Fis1 siRNA (h): sc-60643, Fis1 siRNA (m): sc-60644, Fis1 shRNA Plasmid (h): sc-60643-SH, Fis1 shRNA Plasmid (m): sc-60644-SH, Fis1 shRNA (h) Lentiviral Particles: sc-60643-V and Fis1 shRNA (m) Lentiviral Particles: sc-60644-V.

Molecular Weight of Fis1: 17 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SK-BR-3 cell lysate: sc-2218 or SJRH30 cell lysate: sc-2287.

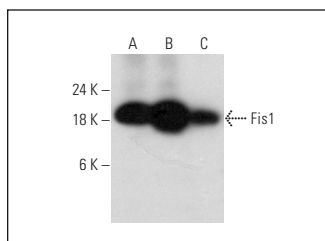
STORAGE

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

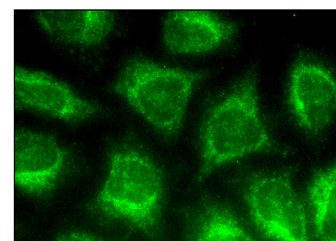
RESEARCH USE

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

DATA



Fis1 (C-10): sc-376469. Western blot analysis of Fis1 expression in HeLa (A), SK-BR-3 (B) and SJRH30 (C) whole cell lysates.



Fis1 (C-10): sc-376469. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Rosignoli, C.P., et al. 2018. Effects of intermittent dietary supplementation with conjugated linoleic acid and fish oil (EPA/DHA) on body metabolism and mitochondrial energetics in mice. *J. Nutr. Biochem.* 60: 16-23.
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- Chang, H.W., et al. 2019. p53/BNIP3-dependent mitophagy limits glycolytic shift in radioresistant cancer. *Oncogene* 38: 3729-3742.
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- Zhang, T., et al. 2020. Testosterone enhances mitochondrial complex V function in the substantia nigra of aged male rats. *Aging* 12: 10398-10414.
- Audzeyenka, I., et al. 2021. Hyperglycemia alters mitochondrial respiration efficiency and mitophagy in human podocytes. *Exp. Cell Res.* 407: 112758.
- Shen, L.W., et al. 2022. Cepharanthine sensitizes human triple negative breast cancer cells to chemotherapeutic agent epirubicin via inducing cofilin oxidation-mediated mitochondrial fission and apoptosis. *Acta Pharmacol. Sin.* 43: 177-193.
- Zhang, L., et al. 2023. Mitochondrial division inhibitor (mdivi-1) inhibits proliferation and epithelial-mesenchymal transition via the NFκB pathway in thyroid cancer cells. *Toxicol. In Vitro* 88: 105552.

PROTOCOLS

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