

Mcl-1 (S-19): sc-819

BACKGROUND

B cell CLL/lymphoma-2 (Bcl-2) blocks cell death following a variety of stimuli and confers a death-sparing effect to certain hematopoietic cell lines following growth factor withdrawal. Myeloid cell leukemia-1 (Mcl-1) shares sequence homology with Bcl-2 and further resembles Bcl-2 in that its expression promotes cell viability. p53 and Mcl-1 demonstrate opposing effects on mitochondrial apoptosis by mediating Bcl-2 antagonist killer (Bak) activity. Mcl-1 is an important and specific regulator that is necessary for the homeostasis of early hematopoietic progenitors. Glycogen synthase kinase-3 (GSK-3) controls Mcl-1 stability, which has an effect on the regulation of apoptosis by growth factors PI 3-kinase and Akt. Mice with a deficiency of the Mcl-1 protein show a significant reduction in B and T lymphocytes similar to the effects observed in IL-7- or IL-7R-deficient mice.

CHROMOSOMAL LOCATION

Genetic locus: MCL1 (human) mapping to 1q21.3; Mcl1 (mouse) mapping to 3 F2.1.

SOURCE

Mcl-1 (S-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Mcl-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-819 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Mcl-1 (S-19) is recommended for detection of Mcl-1 long and short forms of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Mcl-1 (S-19) is also recommended for detection of Mcl-1 long and short forms in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Mcl-1 siRNA (h): sc-35877, Mcl-1 siRNA (m): sc-35878, Mcl-1 shRNA Plasmid (h): sc-35877-SH, Mcl-1 shRNA Plasmid (m): sc-35878-SH, Mcl-1 shRNA (h) Lentiviral Particles: sc-35877-V and Mcl-1 shRNA (m) Lentiviral Particles: sc-35878-V.

Molecular Weight of Mcl-1_L: 40 kDa.

Molecular Weight of Mcl-1_S: 32 kDa.

Positive Controls: Mcl-1 (h): 293T Lysate: sc-176626, Ramos cell lysate: sc-2216 or BJAB whole cell lysate: sc-2207.

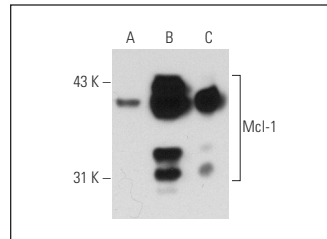
RESEARCH USE

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

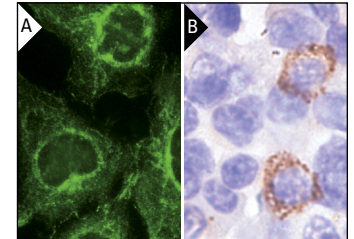
STORAGE

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

DATA



Mcl-1 (S-19): sc-819. Western blot analysis of Mcl-1 expression in non-transfected 293T: sc-117752 (A), human Mcl-1 transfected 293T: sc-176626 (B) and Ramos (C) whole cell lysates.



Mcl-1 (S-19): sc-819. Immunofluorescence staining of methanol-fixed BJAB cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil tissue showing cytoplasmic staining (B).

SELECT PRODUCT CITATIONS

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- Liu, F., et al. 2011. Verticillin A overcomes apoptosis resistance in human colon carcinoma through DNA methylation-dependent upregulation of BNIP3. *Cancer Res.* 71: 6807-6816.
- Martín-Pérez, R., et al. 2011. ER stress sensitizes cells to TRAIL through down-regulation of FLIP and Mcl-1 and PERK-dependent up-regulation of TRAIL-R2. *Apoptosis* 17: 349-363.
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- Reiner, T., et al. 2013. Betulinic acid selectively increases protein degradation and enhances prostate cancer-specific apoptosis: possible role for inhibition of deubiquitinase activity. *PLoS ONE* 8: e56234.
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 MONOS
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