

Mcl-1 (8C6D4B1): sc-53951

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 (GSK3) 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 (8C6D4B1) is a mouse monoclonal antibody raised against recombinant Mcl-1 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.

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.

APPLICATIONS

Mcl-1 (8C6D4B1) is recommended for detection of Mcl-1 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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 long form: 40 kDa.

Molecular Weight of Mcl-1 short form: 32 kDa.

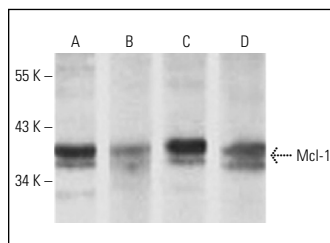
Positive Controls: Jurkat whole cell lysate: sc-2204, HL-60 whole cell lysate: sc-2209 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

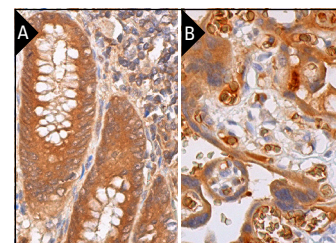
To ensure optimal results, the following support reagents are recommended:

- 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.
- 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Mcl-1 (8C6D4B1): sc-53951. Western blot analysis of Mcl-1 expression in HeLa (A), BCBL-1 (B), Jurkat (C), and HL-60 (D) whole cell lysates.



Mcl-1 (8C6D4B1): sc-53951. Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic staining of glandular cells and lymphoid cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells (B).

SELECT PRODUCT CITATIONS

1. Kim, J.H. and Park, B. 2017. Triptolide blocks the Stat3 signaling pathway through induction of protein tyrosine phosphatase SHP-1 in multiple myeloma cells. *Int. J. Mol. Med.* 40: 1566-1572.
2. Luo, G., et al. 2018. Dendritic cell factor 1 inhibits proliferation and migration and induces apoptosis of neuroblastoma cells by inhibiting the ERK signaling pathway. *Oncol. Rep.* 41: 103-112.
3. Wudtiwai, B., et al. 2018. α-mangostin, an active compound in *Garcinia mangostana*, abrogates anoikis-resistance in human hepatocellular carcinoma cells. *Toxicol. In Vitro* 53: 222-232.
4. Ma, Z. and Xue, X. 2018. Differentially expressed proteins in the human esophageal cancer cell line Eca-109, in the presence and absence of gemcitabine. *Mol. Med. Rep.* 17: 1873-1878.
5. Liu, S.J., et al. 2019. MiR-15a-3p affects the proliferation, migration and apoptosis of lens epithelial cells. *Mol. Med. Rep.* 19: 1110-1116.



See **Mcl-1 (22): sc-12756** for Mcl-1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.