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Diagnostik & molekulare Diagnostik



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### Zuschläge

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- Expressversand

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# Mcl-1 (m2): 293T Lysate: sc-121559

## 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.

## REFERENCES

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2. Craig, R.W., et al. 1994. Human and mouse chromosomal mapping of the myeloid cell leukemia-1 gene: Mcl-1 maps to human chromosome 1q21, a region that is frequently altered in preneoplastic and neoplastic disease. *Genomics* 23: 457-463.
3. Rinkenberger, J.L., et al. 2000. Mcl-1 deficiency results in peri-implantation embryonic lethality. *Genes Dev.* 14: 23-27.
4. Bae, J., et al. 2000. Mcl-1S, a splicing variant of the anti-apoptotic Bcl-2 family member Mcl-1, encodes a pro-apoptotic protein possessing only the BH3 domain. *J. Biol. Chem.* 275: 25255-25261.
5. Opferman, J.T., et al. 2003. Development and maintenance of B and T lymphocytes requires anti-apoptotic Mcl-1. *Nature* 426: 671-676.
6. Leu, J.I., et al. 2004. Mitochondrial p53 activates Bak and causes disruption of a Bak-Mcl-1 complex. *Nat. Cell Biol.* 6: 443-450.
7. Opferman, J.T., et al. 2005. Obligate role of anti-apoptotic Mcl-1 in the survival of hematopoietic stem cells. *Science* 307: 1101-1104.
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## CHROMOSOMAL LOCATION

Genetic locus: Mcl1 (mouse) mapping to 3 F2.1.

## PRODUCT

Mcl-1 (m2): 293T Lysate represents a lysate of mouse Mcl-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

Mcl-1 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Mcl-1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.