Technical Data Sheet

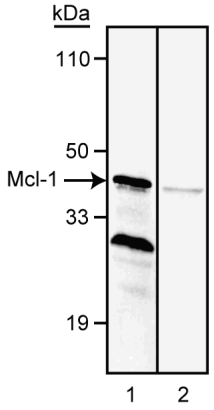
Polyclonal Rabbit Anti-Human Mcl-1

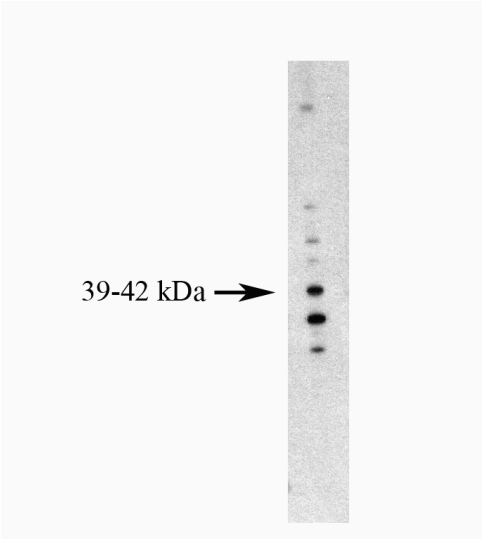
Product Information

Material Number:	**554103**
Size:	0.1 ml
Clone:	Polyclonal
Immunogen:	Human Mcl-1 aa. 121-139 Peptide
Isotype:	Rabbit Ig
Reactivity:	QC Testing: Human
Target MW:	39-42 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide and ≤0.03% thimerosal

Description

Mcl-1 (for myeloid cell leukemia-1) is a member of the Bcl-2 family that was identified by screening of of cDNA libraries derived from differentiating human myeloid leukemia cells. Bcl-2 family members are involved in apoptosis and share two highly conserved functional regions, Bcl-2 homology 1 and 2 (BH1 and BH2). Several of the family members including Bcl-2 act as inhibitors of apoptosis, whereas others such as Bax promote cell death. It is thought that protein-protein interactions between Bcl-2 family members play an important role in their function. For example, Bax can homodimerize as well as heterodimerize with Bcl-2. When Bax is present in excess, it can counteract the ability of Bcl-2 to inhibit cell death. Although its function remains to be fully elucidated, Mcl-1 may, like Bcl-2, be a blocker of cell death. For example, transfection of Mcl-1 into Chinese hamster ovary cells partially blocked Myc-induced apoptosis, and Mcl-1 blocked Bax mediated cell death in a yeast two-hybrid system. The two-hybrid system results suggest that Mcl-1/Bax interations may have functional homology to Bcl-2/Bax interations in blocking Bax-mediated cell death. This polyclonal antibody is not recommended for the identification of mouse Mcl-1 and has been reported not to cross-react with human Bcl-2.





Western blot analysis for Mcl-1.
Left figure: *In vitro translated human Mcl-1 (lane 1) and a lysate from human tonsil (lane 2) were probed with the polyclonal rabbit anti-human Mcl-1 antibody at a 1:1000 dilution. The lower band below the 39-42 kDa Mcl-1 band observed in lane 1 may represent a degradation product or a translation initiation product from an internal AUG codon.*
Right figure: *A SK-N-SH cell lysate (Human neuroblastoma; ATCC HTB-11) was probed with the polyclonal rabbit anti-human Mcl-1 antibody at a 1:1000 dilution. Mcl-1 is identified as the band at 39-42 kDa.*

Preparation and Storage

Store undiluted at 4°C.

Application Notes

Application

Western blot	Routinely Tested
Immunohistochemistry-formalin (antigen retrieval required)	Reported
Immunohistochemistry-frozen	Reported
Immunoprecipitation	Reported

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554021	HRP Goat Anti-Rabbit Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
3. This product contains thimerosal, an organic mercury compound. Mercury and mercury compounds are chemicals known to the State of California to cause birth defects or other reproductive harm. Foreseeable use of this product does not pose a known reproductive toxicity threat.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Kozopas KM, Yang T, Buchan HL, Zhou P, Craig RW. MCL1, a gene expressed in programmed myeloid cell differentiation, has sequence similarity to BCL2. *Proc Natl Acad Sci U S A.* 1993; 90(8):3516-3520. (Biology)

Krajewski S, Bodrug S, Krajewska M, et al.. Immunohistochemical analysis of Mcl-1 protein in human tissues. Differential regulation of Mcl-1 and Bcl-2 protein production suggests a unique role for Mcl-1 in control of programmed cell death in vivo.. *Am J Pathol.* 1995; 146(6):1309-1319. (Immunogen: Immunohistochemistry, Western blot)

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Ohta K, Iwai K, Kasahara Y, et al. Immunoblot analysis of cellular expression of Bcl-2 family proteins, Bcl-2, Bax, Bcl-X and Mcl-1, in human peripheral blood and lymphoid tissues. *Int Immunol.* 1995; 7(11):1817-1825. (Biology: Western blot)

Reynolds JE, Yang T, Qian L, et al.. Mcl-1, a member of the Bcl-2 family, delays apoptosis induced by c-Myc overexpression in Chinese hamster ovary cells.. *Cancer Res.* 1994; 54(24):6348-6352. (Biology)

Sato T, Hanada M, Bodrug S, et al.. Interactions among members of the Bcl-2 protein family analyzed with a yeast two-hybrid system.. *Proc Natl Acad Sci U S A.* 1994; 91(20):9238-9242. (Biology)