Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 200-401-CR9

Mcl-1 Antibody

Overview

Description:	Anti-Mcl-1 (RABBIT) Antibody - 200-401-CR9
Item No.:	200-401-CR9
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Myeloid cell leukimia-1 (Mcl-1) is a member of the Bcl-2 family of proteins that can act to promote cell survival. While the mechanism by which Mcl-1 inhibits apoptosis is not known, it is thought that it may heterodimerize and neutralize pro-apoptotic members of the Bcl-2 family such as Bim or Bak. Mcl-1 was originally identified in differentiating myeloid cells, but has since been shown to be expressed in multiple cell types. Mcl-1 is essential for embryogenesis and for the development and maintenance of B and T lymphocytes in animals. Mcl-1 exists as at least three distinct isoforms designated Mcl-1L, Mcl-1S and Mcl-1ES. In marked contrast to the larger isoform of Mcl-1, overexpression of Mcl-1S promotes cell death.
Synonyms:	Mcl-1 Antibody, TM, EAT, MCL1L, MCL1S, Mcl-1, BCL2L3, MCL1-ES, bcl2-L-3, mcl1/EAT, Induced myeloid leukemia cell differentiation protein Mcl-1, Bcl-2-like protein 3, Bcl2-L-3
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	MCL1
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-Mcl-1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a peptide corresponding to 16 amino acids near the C-terminus of human Mcl-1.
Purity/Specificity:	Anti-Mcl-1 Antibody is affinity chromatography purified via peptide column. Detects isoforms Mcl-1L and Mcl-1ES.
Relevant Links:	• UniProtKB - Q07820 • GeneID - 4170 • NCBI - NP_068779

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-Mcl-1 Antibody has been tested for use in ELISA, Western Blotting, Immunocytochemistry, and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 37 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000-1:20,000
IF:	10 µg/mL
WB:	1-2 µg/mL

Formulation

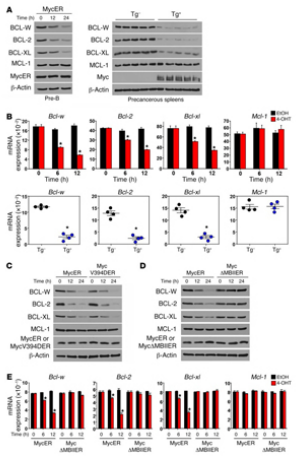
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

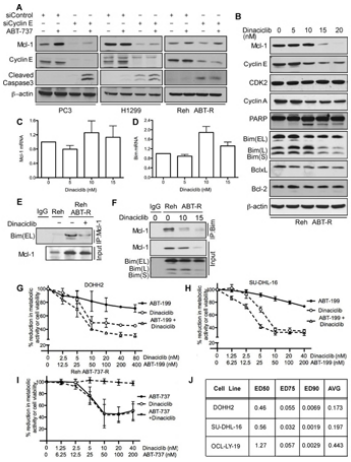
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

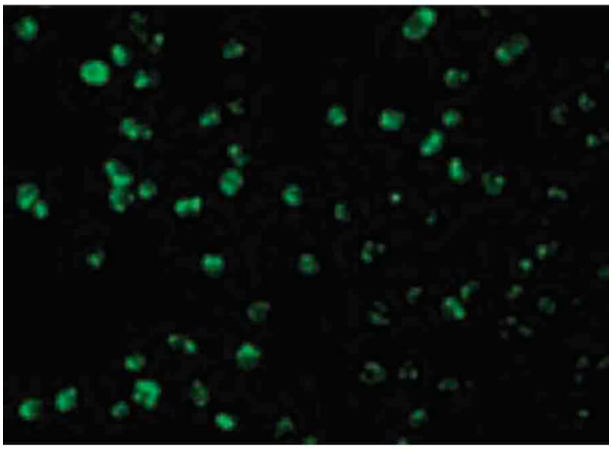


Western Blot
At intervals following the addition of 4-OHT, WT pre–B cells (A, left) and p53-null MEFs (C–E) expressing either WT MYCER (A, left, B, top, C, and D), MYCV394D-ER (C), or MYCΔMBII-ER (D and E) were Western blotted for the indicated proteins (A, C, and D), and mRNA levels were measured in triplicate by qRT-PCR (B, top, and E). Precancerous splenocytes from Eμ-MYC–Tg (Tg+) and non-Tg littermates (Tg–) were subjected to Western blotting (A, right) and qRT-PCR (in triplicate, B, bottom; n = 4 of each). mRNA expression was normalized to β-actin and presented as 2–ΔΔCt. Data shown are representative of 2 to 4 independent experiments. Error bars indicate the SEM. *P < 0.0071 (B) and *P < 0.005 (E), by t test. Fig 4.
PMID: 28094768



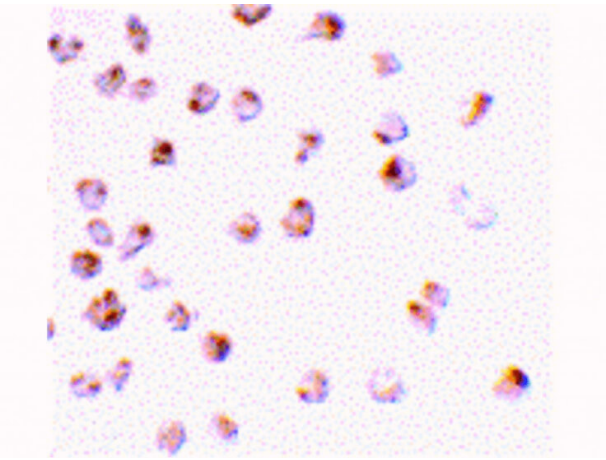
Western Blot

A. PC3, H1299, and Reh ABT-R cells were transfected with siCyclin E and siControl and treated with ABT-737 (10 µM) after 24 h. Expression levels of the indicated proteins were determined by immunoblotting after an additional 18 h of incubation. Reh ABT-R cells were treated with dinaciclib for 24 h and B. expression levels for the indicated proteins was determined by immunoblotting C. Mcl-1 and D. Bim mRNA was analyzed by qRT-PCR. E. Reh ABT-R cells were treated with dinaciclib (10 nM) for 18 h. Association of Mcl-1 with Bim was determined by immunoblotting in Reh and Reh ABT-R cells by immunoprecipitating Mcl-1. F. Association of Bim with Mcl-1 was determined by immunoprecipitating Bim in Reh ABT-R cells after treating with dinaciclib for 18 h. G. DOHH2 and H. SU-DHL-16 I. Reh ABT-R cells were treated with the indicated concentrations of ABT-199 ± dinaciclib for 24 h. Percentage reduction in metabolic activity was determined by the MTS assay. J. Combination index (CI) values for indicated cell lines. CI< 1 indicates synergism. Data in A., B., E., F. are representative of three independent experiments. SD in C., D., G.-I. is indicated by error bars (n = 3). Fig 6. PMID: 26219338

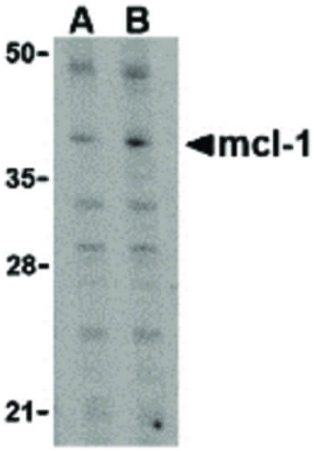


Immunofluorescence Microscopy

Immunofluorescence Microscopy of Mcl-1 antibody. Cell Type: Raji cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: Mcl-1 antibody at 10 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Mcl-1 is located in the cytoplasm, cell membrane, mitochondrion, and the nuclues. Staining: Mcl-1 as green fluorescent signal.



Immunohistochemistry
Immunocytochemistry of Mcl-1 antibody. Cell Type: Raji cells. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Mcl-1 antibody at 2 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Mcl-1 is located in the cytoplasm, cell membrane, mitochondrion, and the nucleus. Staining: Mcl-1 as is stained brown with hematoxylin purple counterstain.



Western Blot
Western Blot of Mcl-1 antibody in Raji cell lysates. Lane A: Mcl-1 antibody at 1 µg/mL. Lane B: Mcl-1 antibody at 2 µg/mL. Load: 35 µg per lane. Primary antibody: Mcl-1 antibody at 1:400 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.
Predicted/Observed size: 37 kDa, 42 kDa for Mcl-1. Other band(s): Mcl-1 splice variants and isoforms.

References

- Adams et al. BCL-W has a fundamental role in B cell survival and lymphomagenesis. *Journal of Clinical Investigation* (2017)
- Choudhary, GS et al. Cyclin E/Cdk2-dependent phosphorylation of Mcl-1 determines its stability and cellular sensitivity to BH3 mimetics. *Oncotarget* (2015)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.