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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

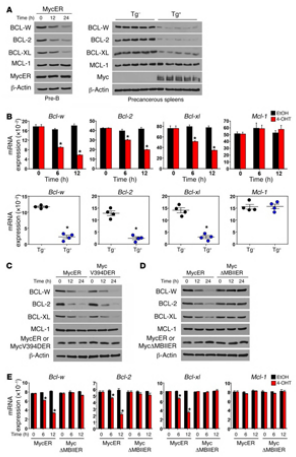
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

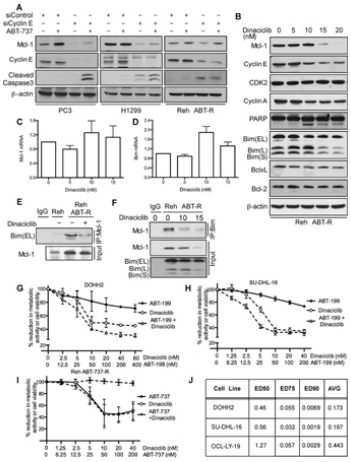
Shipping Condition:	Dry Ice

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

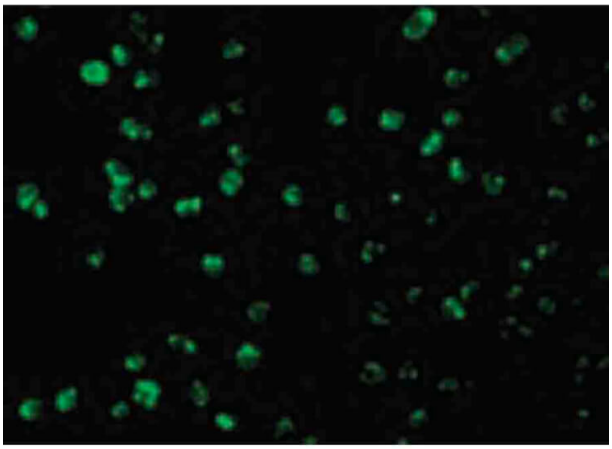


Western Blot
At intervals following the addition of 4-OHT, WT pre–B cells (A, left) and p53-null MEFs (C–E) expressing either WT MYCER (A, left, B, top, C, and D), MYCV394D-ER (C), or MYCΔMBII-ER (D and E) were Western blotted for the indicated proteins (A, C, and D), and mRNA levels were measured in 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



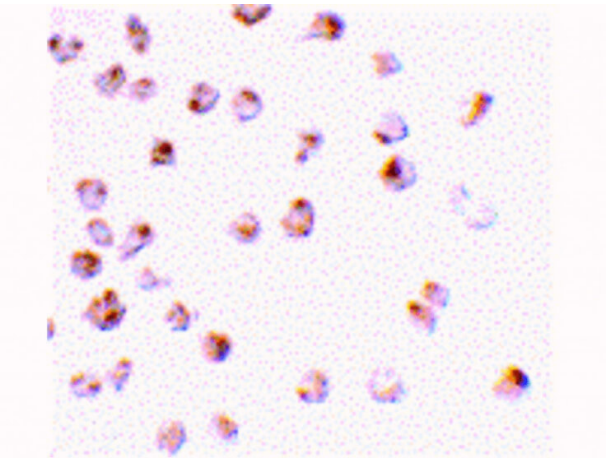
Western Blot

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

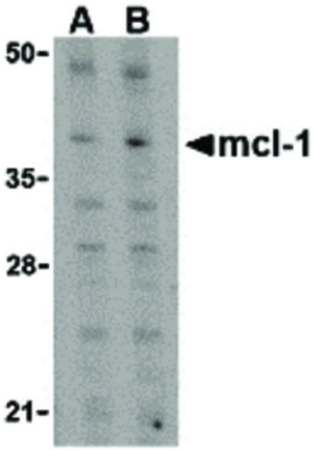


Immunofluorescence Microscopy

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)

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