Datasheet for ABIN6657787

anti-MCL-1 antibody (Internal Region)

4 Images | 72 Publications

Go to Product page

Overview

Quantity:	25 µL
Target:	MCL-1 (MCL1)
Binding Specificity:	Internal Region
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MCL-1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Purpose:	Mcl-1 Antibody
Immunogen:	This affinity purified antibody was purified from whole rabbit serum prepared by repeated immunizations with a synthetic peptide corresponding to an internal region of mouse Mcl-1 conjugated to Keyhole Limpet Hemocyanin (KLH).
Isotype:	IgG
Cross-Reactivity (Details):	Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum.
Purification:	Anti-Mcl-1 affinity purified antibody was prepared from monospecific antiserum by immunoaffinity chromatography using synthetic peptide coupled to agarose beads followed by cross adsorption to remove any unwanted reactivity.
Sterility:	Sterile filtered

Target Details

Target:	MCL-1 (MCL1)
Alternative Name:	Mcl-1 (MCL1 Products)
Background:	Synonyms: rabbit anti-Mcl-1 antibody, Mcl1, Mcl 1, Bcl 2 related protein EAT/mcl1 antibody, Bcl2 related antibody, EAT antibody, Induced myeloid leukemia cell differentiation protein Mcl-1 antibody Background: Regulated apoptosis is essential for both the development and the subsequent maintenance of the immune system. Interleukins, including IL-2, IL-4, IL-7 and IL-15, heavily influence lymphocyte survival during the vulnerable stages of VDJ rearrangement and later in ensuring cellular homeostasis, but the genes specifically responsible for the development and maintenance of lymphocytes have not been identified. The Anti apoptotic protein Mcl-1 (myeloid cell leukemia sequence 1 (BCL2-related)) is an attractive candidate, as it is highly regulated, appears to enhance short-term survival and functions at an apical step in genotoxic deaths. However, Mcl-1 deficiency results in peri-implantation lethality. Mice, conditional for Mcl-1, display a profound reduction in B and T lymphocytes when Mcl-1 is removed. Deletion of Mcl-1 during early lymphocyte differentiation increases apoptosis and arrests the development at pro-B-cell and double negative T-cell stages. Induced deletion of Mcl-1 in peripheral B- and T-cell populations results in their rapid loss. Moreover, IL-7 both induces and requires Mcl-1 to mediate lymphocyte survival. Mcl-1 is essential both early in lymphoid development and later on in the maintenance of mature lymphocytes. Gene Name: Mcl1
Gene ID:	17210
UniProt:	P97287
Pathways:	MAPK Signaling

Application Details

Application Notes:	ELISA_Dilution: 1:10,000 - 1:50,000 Western_Blot_Dilution: 1:10,000 Other: User Optimized
Comment:	Suggested Applications: FC, IF, IHC, IP Anti-Mcl-1 Antibody has been tested by ELISA and western blot and is suitable for immunoprecipitation. This antibody detects mouse Mcl-1 and is not expected to cross react with the human sequence. Cross reactivity with Mcl-1 from other sources is unknown. This antibody is highly specific, showing no bands in null cell lysates from Mcl-1 knockout mice even

Application Details

	when grossly over-exposed. Mouse Mcl-1 (myeloid cell leukemia sequence 1) is composed of 331 amino acids and is reported to be 35.2 kDa in size. The human ortholog consists of 351 amino acids and is reported to be 37.3 kDa in size.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiry Date:	12 months

Publications

Product cited in:	Karbon, Schuler, Braun, Eichin, Haschka, Drach, Sotillo, Geley, Spierings, Tijhuis, Foijer, Villunger: "Chronic spindle assembly checkpoint activation causes myelosuppression and gastrointestinal atrophy." in: **EMBO reports**, Vol. 25, Issue 6, pp. 2743-2772, (2024) (PubMed). Lindenboim, Zohar, Gundersen, Worman, Stein: "LINC complex protein nesprin-2 has pro-apoptotic activity via Bcl-2 family proteins." in: **Cell death discovery**, Vol. 10, Issue 1, pp. 29, (2024) (PubMed). Prucsi, Zimny, Płonczyńska, Zubrzycka, Potempa, Sochalska: "Porphyromonas gingivalis

Publications

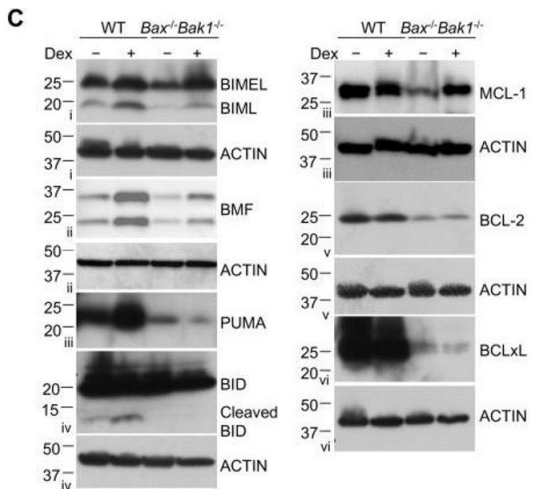
Peptidyl Arginine Deiminase (PPAD) in the Context of the Feed-Forward Loop of Inflammation in Periodontitis." in: **International journal of molecular sciences**, Vol. 24, Issue 16, (2023) (PubMed).

Quarato, Mari, Barrows, Yang, Ruehl, Chen, Guy, Low, Chen, Green: "Mitophagy restricts BAX/BAK-independent, Parkin-mediated apoptosis." in: **Science advances**, Vol. 9, Issue 21, pp. eadg8156, (2023) (PubMed).

Huang, Chin, Reljic, Djajawi, Tan, Gong, Stroud, Huang, van Delft, Dewson: "Mitochondrial E3 ubiquitin ligase MARCHF5 controls BAK apoptotic activity independently of BH3-only proteins." in: **Cell death and differentiation**, Vol. 30, Issue 3, pp. 632-646, (2023) (PubMed).

There are more publications referencing this product on: Product page

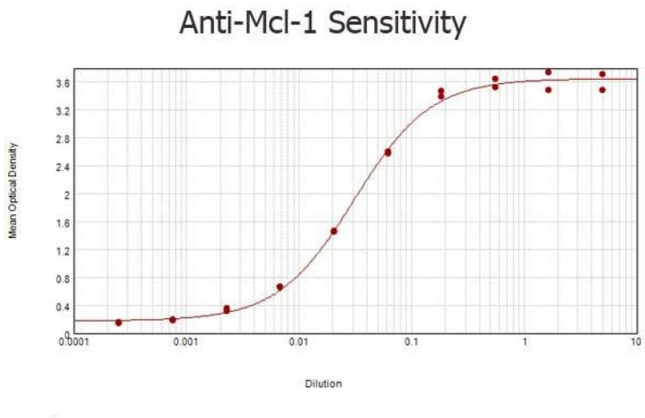
Images



Western Blotting

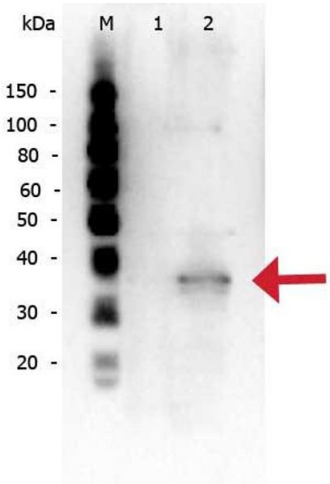
Image 1. Characterization of clonal lymphoid lines mutant for combinations of pro-apoptotic BCL2 family proteins.a Whole-cell lysates from Bax-/-Bak1-/- and three independent Bax-/-Bak1-/-Bim-/- cell clones treated with 1μM Dex treatment for 24hrs were subjected to western blot analysis to detect BIM protein. Upper panel: WEHI7 mutant lines, lower panel: p53-/- T lymphoma mutant lines. bBax+/+Bak1+/+ WEHI7 cells expressing Cas9 were transduced with sgRNAs targeting mouse Bim, Bmf and Puma. Following treatment with doxycycline to induce sgRNA expression, clones were isolated and validated for absence of BIM, BMF, and PUMA by western blotting after 24hrs treatment with 1μM Dex. c Wild type (WT) and Bax-/-Bak1-/- WEHI7 cells were treated for 24hrs with 1μM Dex and lysates were run on replicate gels and analyzed by western blot using antibodies specific for the indicated BCL2 family proteins. Roman numerals to the left of blots (i-vi) indicate the membranes probed. d Whole-cell lysates

from Bax+/+Bak1+/+ and Bax-/-Bak1-/-p53-/- T lymphoma cells treated with 1μM Dex for 24hrs were tested by western for expression of BIM. Note that the absence of protein in the Dex-treated WT p53-/- T lymphoma cells is due to the death of most of the cells by 24hours. - figure provided by CiteAb. Source: PMID32513923



ELISA

Image 2. Rabbit anti-Mcl-1 ELISA ELISA results of purified Rabbit anti-Mcl-1 Antibody tested against BSA-conjugated peptide of immunizing peptide. Each well was coated in duplicate with 0.1μg of conjugate. The starting dilution of antibody was 5μg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using 3% fish gel, Goat anti-Rabbit IgG Antibody Peroxidase Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rt & Sh Serum Proteins) and TMB ELISA Peroxidase Substrate .



Western Blotting

Image 3. Rabbit anti-Mcl-1 WB Western Blot of Rabbit anti-Mcl-1 antibody. Lane 1: MEF WT Lysate. Lane 2: MEL depleted Mcl-1 lysate. Load: 15 μg per lane. Primary antibody: Mcl-1 antibody at 1:1,000 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:40,000 for 30 min at RT. Block: Blocking Buffer for Fluorescent Western Blotting (ABIN925618) for 30 min at RT. Predicted/Observed size: 37 kDa, 37 kDa for Mcl-1.

Please check the product details page for more images. Overall 4 images are available for ABIN6657787.