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# MCL1 Antibody (BH3 Domain Specific)

**Purified Rabbit Polyclonal Antibody (Pab)**

**Catalog # AP1312a**

## Specification

### MCL1 Antibody (BH3 Domain Specific) - Product Information

| | |
|---|---|
| Application | **IHC-P, WB, FC,E** |
| Primary Accession | Q07820 |
| Reactivity | **Human, Mouse, Rat** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Antigen Region | **191-226** |

### MCL1 Antibody (BH3 Domain Specific) - Additional Information

**Gene ID** 4170

**Other Names**
Induced myeloid leukemia cell differentiation protein Mcl-1, Bcl-2-like protein 3, Bcl2-L-3, Bcl-2-related protein EAT/mcl1, mcl1/EAT, MCL1, BCL2L3

**Target/Specificity**
This MCL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 191-226 amino acids from human MCL1.

**Dilution**
IHC-P~~1:10~50
WB~~1:2000
FC~~1:25
E~~Use at an assay dependent concentration.

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
MCL1 Antibody (BH3 Domain Specific) is for research use only and not for use in diagnostic or therapeutic procedures.

### MCL1 Antibody (BH3 Domain Specific) - Protein Information

**Name** MCL1

**Synonyms** BCL2L3

**Function** Involved in the regulation of apoptosis versus cell survival, and in the maintenance of viability but not of proliferation. Mediates its effects by interactions with a number of other regulators of apoptosis. Isoform 1 inhibits apoptosis. Isoform 2 promotes apoptosis.

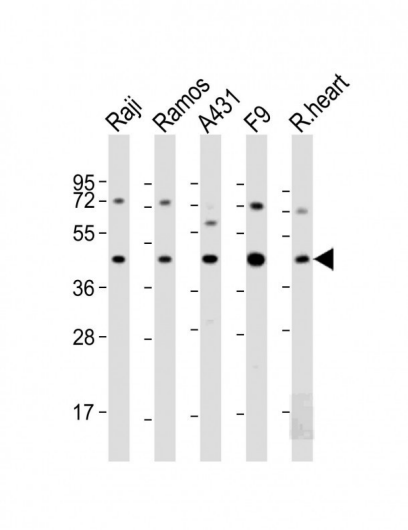
**Cellular Location**
Membrane; Single-pass membrane protein. Cytoplasm. Mitochondrion. Nucleus, nucleoplasm Note=Cytoplasmic, associated with mitochondria

## MCL1 Antibody (BH3 Domain Specific) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## MCL1 Antibody (BH3 Domain Specific) - Images




All lanes : Anti-MCL1 Antibody (BH3 Domain Specific) at 1:2000 dilution Lane 1: Raji whole cell lysate Lane 2: Ramos whole cell lysate Lane 3: A431 whole cell lysate Lane 4: F9 whole cell lysate Lane 5: A20 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 37 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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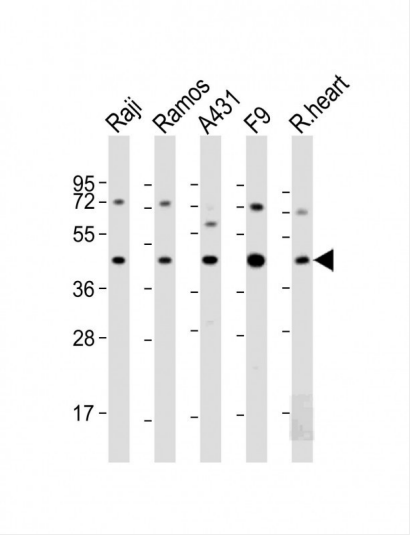
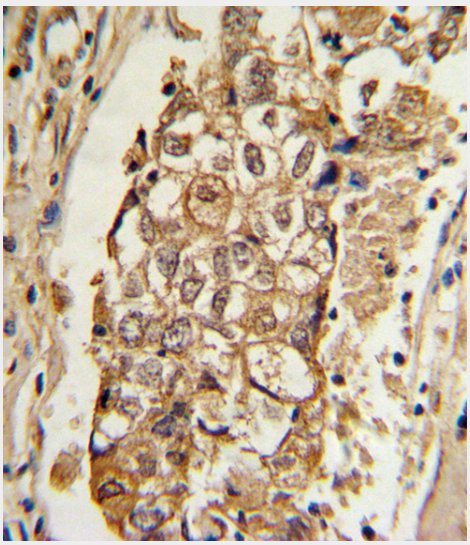



All lanes : Anti-MCL1 Antibody (BH3 Domain Specific) at 1:2000 dilution Lane 1: Raji whole cell lysate Lane 2: Ramos whole cell lysate Lane 3: A431 whole cell lysate Lane 4: F9 whole cell lysate Lane 5: rat heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 37 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human breast carcinoma with MCL1 Antibody (BH3 Domain Specific), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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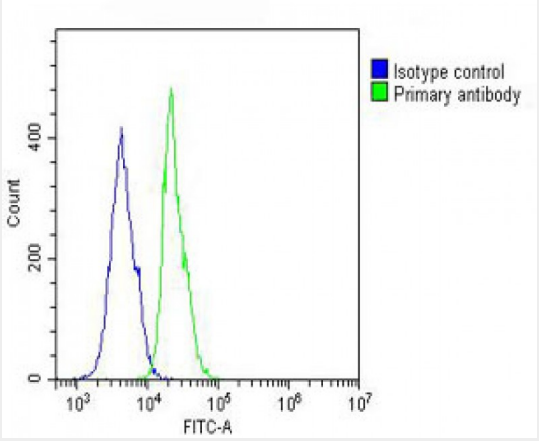


Overlay histogram showing A431 cells stained with AP1312a (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP1312a, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

**MCL1 Antibody (BH3 Domain Specific) - Background**

The Mcl-1 protein belongs to the Bcl-2 family. Alternative splicing occurs at this locus and two transcript variants encoding distinct isoforms have been identified. The longer gene product (isoform 1) enhances cell survival by inhibiting apoptosis while the alternatively spliced shorter gene product (isoform 2) promotes apoptosis and is death-inducing.

**MCL1 Antibody (BH3 Domain Specific) - References**

Crossley, L.J., J. Leukoc. Biol. 74(4):583-592 (2003).
Kotelkin, A., et al., J. Virol. 77(17):9156-9172 (2003).
Erwert, R.D., et al., Microb. Pathog. 35(2):87-93 (2003).
Liu, H., et al., Blood 102(1):344-352 (2003).
Nijhawan, D., et al., Genes Dev. 17(12):1475-1486 (2003).

**MCL1 Antibody (BH3 Domain Specific) - Citations**

- DNA methylation-regulated miR-193a-3p dictates resistance of hepatocellular carcinoma to 5-fluorouracil via repression of SRSF2 expression.
- P-glycoprotein enhances radiation-induced apoptotic cell death through the regulation of miR-16 and Bcl-2 expressions in hepatocellular carcinoma cells.
- Characterization of the TCL-1 transgenic mouse as a preclinical drug development tool for human chronic lymphocytic leukemia.
- Enforced Bcl-2 expression overrides serum and feeder cell requirements for mouse embryonic stem cell self-renewal.