

Rabbit MCL1 Polyclonal Antibody | anti-MCL1 antibody

Anti-MCL1 Antibody Picoband

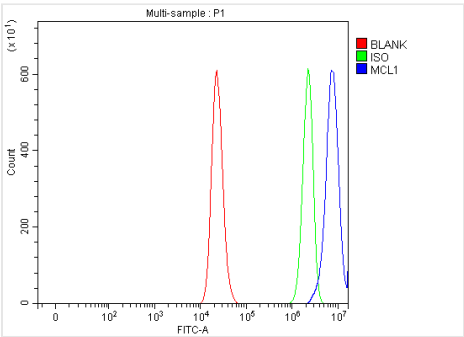
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127005	Rabbit	Human, Mouse, Rat	Western Blot, Immunofluorescence, Immunocytochemistry, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

MCL1; Polyclonal Antibody; Anti-MCL1 Antibody Picoband; cAMP-dependent protein kinase type I-alpha regulatory subunit; neurotrophic tyrosine kinase; receptor; type 1; High affinity nerve growth factor receptor; anti-MCL1 antibody

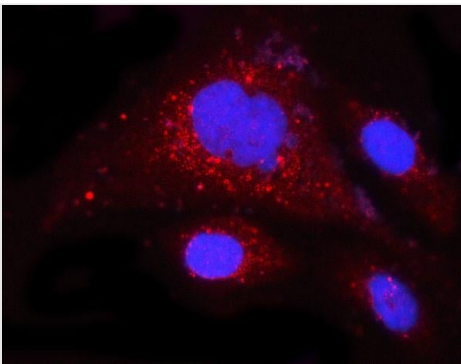
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Isoform TrkA-I is found in most non-neuronal tissues. Isoform TrkA-II is primarily expressed in neuronal cells. TrkA-III is specifically expressed by pluripotent neural stem and neural crest progenitors.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-MCL1 antibody	WB (Western Blot), IF (Immunofluorescence), ICC (Immunocytochemistry), FCM/FACS (Flow Cytometry), ELISA
Immunogen	E coli-derived human MCL1 recombinant protein (Position: E109-E325).
Subcellular Localization	Cell membrane
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Receptor tyrosine kinase involved in the development and the maturation of the central and peripheral nervous systems through regulation of proliferation, differentiation and survival of sympathetic and nervous neurons. High affinity receptor for NGF which is its primary ligand (PubMed:1850821, PubMed:1849459, PubMed:1281417, PubMed:8325889, PubMed:15488758, PubMed:17196528). Can also bind and be activated by NTF3/neurotrophin-3. However, NTF3 only supports axonal extension through NTRK1 but has no effect on neuron survival (By similarity). Upon dimeric NGF ligand-binding, undergoes homodimerization, autophosphorylation and activation (PubMed:1281417). Recruits, phosphorylates and/or activates several downstream effectors including SHC1, FRS2, SH2B1, SH2B2 and PLCG1 that regulate distinct overlapping signaling cascades driving cell survival and differentiation. Through SHC1 and FRS2 activates a GRB2-Ras-MAPK cascade that regulates cell differentiation and survival. Through PLCG1 controls NF-Kappa-B activation and the transcription of genes involved in cell survival. Through SHC1 and SH2B1 controls a Ras- PI3 kinase-AKT1 signaling cascade that is also regulating survival. In absence of ligand and activation, may promote cell death, making the survival of neurons dependent on trophic factors.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.



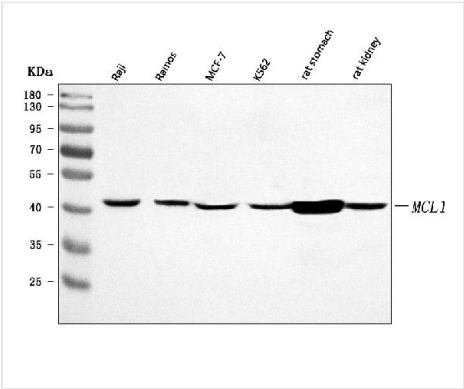
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of RT4 cells using anti-MCL1 antibody (AAA127005).Overlay histogram showing RT4 cells stained with AAA127005 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MCL1 Antibody (AAA127005, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 2. IF analysis of MCL1 using anti-MCL1 antibody (AAA127005).MCL1 was detected in an immunocytochemical section of PC3 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-MCL1 Antibody (AAA127005) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



WB (Western Blot)

Figure 1. Western blot analysis of MCL1 using anti-MCL1 antibody (AAA127005).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human Raji whole cell lysates,Lane 2: human Ramos whole cell lysates,Lane 3: human MCF-7 whole cell lysates,Lane 4: human K562 whole cell lysates,Lane 5: rat stomach tissue lysates,Lane 6: rat kidney tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MCL1 antigen affinity purified polyclonal antibody (#AAA127005) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for MCL1 at approximately 40 kDa. The expected band size for MCL1 is at 28,37,40 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-MCL1 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-MCL1 antibody	Primary Antibodies; Cancer; Growth and Development; Neurology Process; Neuroscience; Oncoproteins; Oncoproteins/Suppressors

References	1. Wertz, I. E., Kusam, S., Lam, C., Okamoto, T., Sandoval, W., Anderson, D. J., Helgason, E., Ernst, J. A., Eby, M., Liu, J., Belmont, L. D., Kaminker, J. S., and 15 others. Sensitivity to antitubulin chemotherapeutics is regulated by MCL1 and FBW7. <i>Nature</i> 471: 110-114, 2011. Note: Erratum: <i>Nature</i> 475: 122 only, 2011. 2. Kozopas KM, Yang T, Buchan HL, Zhou P, Craig RW (May 1993). "MCL1, a gene expressed in programmed myeloid cell differentiation, has sequence similarity to BCL2". <i>Proc Natl Acad Sci U S A</i> 90 (8): 3516-20. 3. Craig RW, Jabs EW, Zhou P, Kozopas KM, Hawkins AL, Rochelle JM, Seldin MF, Griffin CA (February 1995). "Human and mouse chromosomal mapping of the myeloid cell leukemia-1 gene: MCL1 maps to human chromosome 1q21, a region that is frequently altered in preneoplastic and neoplastic disease". <i>Genomics</i> 23 (2): 457-63. 4. "Entrez Gene: MCL1 myeloid cell leukemia sequence 1 (BCL2-related)"
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NCBI AND UNIPROT INFORMATION

NCBI GI #	309747067
NCBI GeneID	4170
NCBI Accession #	NP_001184249.1
NCBI GenBank Nucleotide #	NM_001197320.1
UniProt Accession #	Q07820; Q9HD91; Q9NRQ3; Q9NRQ4; Q9UHR7; Q9UHR8; Q9UHR9; Q9UNJ1; B2R6B2; D3DV03; D3DV04
Molecular Weight	37,337 Da
NCBI Official Full Name	induced myeloid leukemia cell differentiation protein Mcl-1 isoform 3
NCBI Official Synonym Full Names	myeloid cell leukemia sequence 1 (BCL2-related)
NCBI Official Symbol	MCL1
NCBI Official Synonym Symbols	TM; EAT; MCL1L; MCL1S; Mcl-1; BCL2L3; MCL1-ES; bcl2-L-3; mcl1/EAT
NCBI Protein Information	induced myeloid leukemia cell differentiation protein Mcl-1; bcl-2-like protein 3; myeloid cell leukemia ES; bcl-2-related protein EAT/mcl1
UniProt Protein Name	Induced myeloid leukemia cell differentiation protein Mcl-1
UniProt Gene Name	MCL1
UniProt Synonym Gene Names	BCL2L3; Bcl2-L-3
UniProt Entry Name	MCL1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.