

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Mcl-1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Mcl-1 Val147-Gly219 Accession # Q07820
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Knockout Validated	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

MCL-1 (induced Myeloid Cell Leukemia differentiation protein 1; also Bcl2L3 and mcl1/EAT) is a 40-45 kDa member of the Bcl-2 family of proteins. It is widely expressed (in B cells, T cells, neutrophils and fibroblasts) and classified as a prosurvival Bcl-2 family member. Functionally, full-length MCL-1 sequesters the proapoptotic proteins Bak and Bax, rendering them inactive. It also delays cell-cycle progression by interacting with CDK1, CHK1 and PCNA. Human MCL-1 is a likely a 350 amino acid (aa) type II transmembrane protein. It contains a large cytoplasmic region (aa 1-327) plus a very short 2 aa C-terminal luminal segment. The cytoplasmic region has multiple domains, including a PEST (Pro/Glu/Ser/Thr)-like segment (aa 104-175), four ubiquitination sites, at least six utilized phosphorylation sites, and three Bcl2-like homology domains (aa 209-223; 252-272; 304-319). MCL-1 is known to form homodimers. There is one splice variant. It is 32-33 kDa in size and contains a 42 aa substitution for aa 230-350. This short form heterodimerizes with full-length MCL-1, rendering it incapable of interacting with Bak and Bax. MCL-1 also undergoes caspase processing. Cleavage after Asp127 generates 17 and 28-30 kDa fragments, while cleavage after Asp 157 generates 21 and 23-25 kDa fragments. These fragments give rise to a proapoptotic environment. Over aa 147-219, human MCL-1 shares 74% aa sequence identity with mouse Mcl-1.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.