Human Mcl-1 Alexa Fluor® 405-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF8281V
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Mcl-1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Mcl-1 Val147-Gly219 Accession # Q07820
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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

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