Mcl-1 Antibody

For Research Use Only. Not For Use In Diagnostic Procedures.

**Product Usage Information**

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<th>Sensitivity</th>
<th>MW (kDa)</th>
<th>Source</th>
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<th>Entrez-Gene ID</th>
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<td>40</td>
<td>Rabbit</td>
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**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**

Mcl-1 Antibody detects endogenous levels of human Mcl-1. The antibody does not cross-react with other Bcl-2 family members at physiological levels.

**Species Reactivity:**

Human

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser121 of human Mcl-1. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

Mcl-1 is an anti-apoptotic member of the Bcl-2 family originally isolated from the ML-1 human myeloid leukemia cell line during phorbol ester-induced differentiation along the monocyte/macrophage pathway (1). Similar to other Bcl-2 family members, Mcl-1 localizes to the mitochondria (2), interacts with and antagonizes pro-apoptotic Bcl-2 family members (3), and inhibits apoptosis induced by a number of cytotoxic stimuli (4). Mcl-1 differs from its other family members in its regulation at both the transcriptional and post-translational level. First, Mcl-1 has an extended amino-terminal PEST region, which is responsible for its relatively short half-life (1,2). Second, unlike other family members, Mcl-1 is rapidly transcribed via a PI3K/Akt dependent pathway, resulting in its increased expression during myeloid differentiation and cytokine stimulation (1,5-7). Mcl-1 is phosphorylated in response to treatment with phorbol ester, microtubule-damaging agents, oxidative stress, and cytokine withdrawal (8-11). Phosphorylation at Thr163, the conserved MAP kinase/ERK site located within the PEST region, slows Mcl-1 protein turnover (10) but may prime the GSK-3 mediated phosphorylation at Ser159 that leads to Mcl-1 destabilization (11). Mcl-1 deficiency in mice results in peri-implantation lethality (12) and inhibits apoptosis induced by a number of cytotoxic stimuli (4). Mcl-1 plays an important role in early lymphoid development and in the maintenance of mature lymphocytes (13).

**Applications:**

Western Blotting

**Source:**

Human

**Species Reactivity:**

Human

**Source / Purification:**

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