Mcl-1 Antibody

**Applications**: Western

**Species Cross-Reactivity**: Human

**Molecular Wt.**: 40 kDa

**Source**: Rabbit

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**Background**: Mcl-1 is an anti-apoptotic member of 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 by a number of cytotoxic stimuli (4). Mcl-1 differs from its other family members in its regulation, both at the transcriptional level and post-translationally. 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 induced at the transcriptional level through a PI3-K/Akt dependent pathway resulting in increased expression during myeloid differentiation and cytokine stimulation (1,5-7). Mcl-1 is subject to regulation at the conserved MAP kinase/ERK site, Thr163, within the PEST region, slows the turnover of the Mcl-1 protein (10). Mcl-1 deficiency in mice results in peri-implantation lethality (11). However, conditional disruption of the mcl-1 gene shows that Mcl-1 plays an important role in early lymphoid development and in the maintenance of mature lymphocytes (12).

**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.

**Source/Purification**: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide (KLH-coupled) corresponding to residues surrounding Ser121 of human Mcl-1. Antibodies are purified by protein A and peptide affinity chromatography.

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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.

*Species cross-reactivity is determined by western blot.

**Recommended Antibody Dilutions**: Western blotting 1:1000

**For application specific protocols please see the web page for this product at www.cellsignal.com.**

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**Western blot analysis of extracts from Raji, Ramos and BL41-3 (a subline of BL41 Burkitt lymphoma cells found to have amplified expression of Mcl-1) cells, using Mcl-1 Antibody.**

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**Background References:**