



## PRODUCT DATA SHEET

**Product:** Anti-Smac/DIABLO mAb, clone 9H10

**Cat. No.:** MC-280 (100 µg)

**Background:**

A novel protein Smac/DIABLO has been identified, which promotes apoptosis by removing MIHA/XIAP from processed caspase-9 in the cytochrome c/Apaf-1/caspase-9 pathway. Smac/DIABLO promotes caspase-9 activation by binding to inhibitor of apoptosis proteins (IAPs), and removing their inhibitory activity. Smac/DIABLO is normally a mitochondrial protein but is released into the cytosol when cells undergo apoptosis. Mitochondrial import and cleavage of its signal peptide are required for Smac/DIABLO to gain its apoptotic activity, which is supported by structural evidence. Overexpression of Smac/DIABLO increases the sensitivity of cells to apoptotic stimuli. Smac/DIABLO is the second mitochondrial protein described, along with cytochrome c, that promotes apoptosis by activating caspases. Smac/DIABLO is the first mammalian protein to be identified that directly inhibits IAP function.

**Specificity:**

This antibody recognizes mouse Smac/DIABLO.

**Species Reactivity:**

Mouse. Others not tested.

**Ig Isotype:**

Rat IgG<sub>2a</sub>

**Immunogen:**

Recombinant mouse Smac/DIABLO (aa 55 - 237).

**Format:**

100 µg of monoclonal antibody at 1 mg/mL in PBS containing 0.02% sodium azide, concentration of 1 mg/mL. ≥95% purity as determined by SDS-PAGE. The antibody was purified by Protein G affinity chromatography.

**Storage and Stability:**

Store at 4°C short term. For long term, store at -20°C. Aliquot to avoid multiple freeze/thaw cycles.

**Applications:**

- ELISA
- Flow cytometry
- Immunocytochemistry
- Immunohistochemistry: Frozen & paraffin sections.
- Immunoprecipitation
- Western blot

The optimal dilution for a specific application should be determined by the researcher.

**Limitations:**

For *in vitro* research use only. Not for use in diagnostics or in humans.

**Warranty:**

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.