



PRODUCT DATA SHEET

Product: Anti-Caspase-3, Clone AM1-4

Cat. No: MC-460 (100 µg)

Background:

Caspase-3 along with caspase 7 and 6 form a group of effector caspases that are responsible for the cleavage of multiple substrates including the cytyokeratins, PARP, alpha fodrin, NuMA and others. Caspase-7 occurs in three variant forms.

Caspase-3-like activities are required for Fas-mediated apoptosis. However, the role of caspase-1 and caspase-3 in mediating Fas-induced cell death is not clear. Although wild-type, caspase-1(-/-), and caspase-3(-/-) hepatocytes were killed at a similar rate when co-cultured with FasL expressing NIH 3T3 cells, caspase-3(-/-) hepatocytes displayed drastically different morphological changes as well as significantly delayed DNA fragmentation observed in hepatocytes. Cleavage of various caspase substrates implicates apoptotic events, including gesolin, fodin, lamin B, and DFF45/ICAD are delayed or absent. The altered cleavage of these key substrates is likely responsible for the aberrant apoptosis observed in both hepatocytes and thymocytes deficient in caspase-3.

Species Reactivity:

Human, others not tested.

Ig Isotype: mouse IgG1

Immunogen:

Hybridoma produced by the fusion of splenocytes from mice immunized with recombinant human Caspase-3 protein and mouse myeloma cells.

Format:

Mouse monoclonal antibody against human Caspase-3 (cysteine-requiring aspartate protease-3). Available in 100 ul vials at a concentration of 1 mg/ml (100ug) in PBS with 0.08% sodium azide. Purified and 0.2 µm sterile filtered.

Storage and Stability:

Stable for 1 week at 2-8°C. Stable for 24 months when stored at -20°C. Aliquot to avoid freeze/thaw cycles.

Applications and Suggested Dilutions:

■ 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.