



PRODUCT DATA SHEET

Product: Anti-human Caspase-3 (CPP2), Polyclonal

Cat. No: PC-055 (100 µg)

Background:

Caspase-3 along with caspase 7 and 6 form the group of effector caspases that are responsible for the cleavage of multiple substrates including the cytokeratins, 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 cocultured with FasL expressing NIH 3T3 cells, caspase-3(-/-) hepatocytes displayed drastically different morphological changes as well as significantly delayed DNA fragmentation. For both wild-type and caspase-1(-/-) apoptotic hepatocytes, typical apoptotic features such as cytoplasmic blebbing and nuclear fragmentation are seen within 6 hr, but neither event was observed for caspase-3(-/-) hepatocytes. In thymocytes apoptotic caspase-3(-/-) thymocytes exhibit similar "abnormal" morphological changes and delayed DNA fragmentation observed in hepatocytes. Cleavage of various caspase substrates implicates apoptotic events, including gelsolin, fodrin, laminB, 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.

Specificity:

Recognizes pro-caspase-3.

Species Reactivity:

Human, other species not tested.

Ig Isotype:

Rabbit IgG

Immunogen:

Full length recombinant caspase-3.

Format:

100 µg purified IgG in PBS with 0.05% sodium azide

Storage and Stability:

Antibodies should be stored at -20°C. Aliquot to avoid freeze/thaw cycles.

Applications and Suggested Dilutions:

■ Western blot: Use at 2-10 µg/ml

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.