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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Caspase-3 . Mouse Monoclonal Antibody

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.

IMMUNOGEN

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

POSITIVE CONTROL/TISSUE EXPRESSION

COMMENTS

Detects human Caspase-3 by Western blot. Optimal concentration should be evaluated by serial dilutions.

ORDERING INFORMATION

CATALOG NUMBER

X1172M

SIZE

100 µg

FORM

Unconjugated

HOST/CLONE

Mouse Clone AM1 4

FORMULATION

Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION

See vial for concentration

ISOTYPE

IgG

APPLICATIONS

Western Blot

SPECIES REACTIVITY

Human

ACCESSION NUMBER

P42574, Human

PURIFICATION

Protein A/G Chromatography

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

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

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

1. Slee, E.A., et al. Ordering the cytochrome c-initiated caspase cascade: hierarchical activation of caspases-2, -3, -6, -7, -8, and -10 in a caspase-9-dependent manner. *J. Cell Biol.* 1999, 144, 281-292
2. Ueda, S., et al. Redox regulation of caspase-3(-like) protease activity: regulatory roles of thioredoxin and cytochrome c. *J. Immunol.* 1998, 161, 6689-6695
3. Samali, A., et al. Presence of a pre-apoptotic complex of pro-caspase-3, Hsp60 and Hsp10 in the mitochondrial fraction of jurkat cells. *EMBO J.* 1999, 18, 2040-2048
4. Cohen, G.M., et al. Caspases: the executioners of apoptosis. *Biochem. J.* 1997, 326, 1-16