

TREVIGEN[®] Product Data

For Research Use Only. Not For Use In Diagnostic Procedures

Anti-Caspase 7 Monoclonal Antibody (clone MCH3-5)

Catalog #: 2312-MC-050

Size: 50 µg

Description: Caspases are key effectors of programmed cell death. Caspase-7 along with caspase 3 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 is a 303 amino acid protein with high similarity to caspase-3. Caspase-7 occurs in three variant forms. Granzyme B activates pro-caspase-7 to a form which can cleave poly(ADP-ribose) polymerase (PARP) to its signature fragment of ~85 kDa. Also, *in vivo* caspase-7 appears to be a better substrate for granzyme B than caspase-3. Pro-caspase-7 has been shown to exist as dimers or high order oligomers. Caspase-7 may be an important intracellular effector of granzyme B-mediated apoptosis and cytotoxic T-lymphocyte-induced cell killing *in vivo*.

Physical State: This antibody is affinity purified from mouse ascites and provided in phosphate-buffered saline (PBS) containing 0.01% sodium azide. The final antibody concentration is 1 µg/µl.

Immunogen: Recombinant human caspase-7 protein

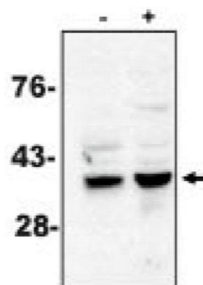
Ig Class: IgG₁

Specificity: Human

Storage: The antibody should be stored frozen at -20°C to -80°C in working aliquots to avoid repeated freezing and thawing.

Applications: Western blotting. A recommended antibody dilution of 1–5 µg per ml is recommended but empirical determination will be required for optimal results.

Figure 1. Western blot analysis using caspase-7 antibody on MCF-7 cells treated with thapsigargin for 48 hours which are negative (-) and positive (+) for caspase-3.



References:

1. Cohen, G.M. 1997. Caspases: the executioners of apoptosis. *Biochem. J.* **326**:1-16.
2. Chandler, J.M., G.M. Cohen, M. MacFarlane. 1998. Different subcellular distribution of Caspase-3 and Caspase-7 following Fas-induced apoptosis in mouse liver. *J. Biol. Chem.* **273**:10815-10818.
3. Behrendorf, H.A., M. van de Craen, U.E., Knies, P. Vandenabeele, M. Clauss. 2000. The endothelial monocyte-activating polypeptide II (EMAP II) is a substrate for caspase-7. *FEBS Lett.* **466**:143-147.

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