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Anti-Caspase-12 (IN)

CATALOG No.: PX033A SIZE: 100 µg
PX033B SIZE: 0.5 mg

BACKGROUND:

Three distinct signaling pathways lead to programmed cell death (apoptosis). The death receptor and mitochondrion pathways are the mains, in which the key apoptotic proteases capase-8 and caspase-9, respectively, are involved. The endoplasmic reticulum (ER) stress is the third apoptotic pathway and caspase-12 is involved (1,2). Caspase-12 is localized to the ER but not to cytoplasm or mitochondrion. Caspase-12 is activated by ER stress, including disruption of ER calcium homeostasis, and mediates ER stress-induced apoptosis. Caspase-12 is co-localized to the ER with several proteins that are involved in Alzheimer's disease including γ-secretase presenilin and β-amyloid precursor protein (APP). Caspase-12 mediates cytotoxicity induced by amyloid-β. Caspase-12 is ubiquitously expressed in mouse tissues (1).

SOURCE:

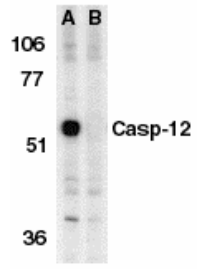
Rabbit anti-caspase-12 (IN) polyclonal antibody was raised against a peptide (CTPSSPSESKRKVEDDE) corresponding to amino acids 100 to 116 of murine caspase-12 (3).

APPLICATION:

This polyclonal antibody can be used for detection of caspase-12 by Western blot at 0.5 to 1 µg/ml. Murine brain tissue lysate can be used as positive control. It is human, mouse, and rat reactive. For research use only.

STORAGE:

It is supplied as immunoaffinity chromatography purified IgG, 100 µg in 200 µl of PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of caspase-12 in murine brain tissue lysate in the absence (A) or presence (B) of blocking peptide with anti-caspase-12 (IN) at 1 µg/ml.

RELATED PRODUCTS:

Blocking peptide, 50 µg at 200 µg/ml, is available for competition studies.

Murine brain tissue lysate, 200 µg at 2 mg/ml, is available for positive control.

REFERENCES:

1. Nakagawa T, Zhu H, Morishima N, Li E, Xu J, Yankner BA, Yuan J. Caspase-12 mediates endoplasmic-reticulum-specific apoptosis and cytotoxicity by amyloid-beta. *Nature* 2000;403:98-103.

2. Mehmet H. Caspases find a new place to hide. *Nature* 2000;403:29-30

3. Van de Craen M, Vandenabeele P, Declercq W, Van den Brande I, Van Loo G, Molemans F, Schotte P, Van Criekinge W, Beyaert R, Fiers W. Characterization of seven murine caspase family members. *FEBS Lett* 1997;403:61-9

CAUTION: NOT FOR USE IN HUMANS. FOR RESEARCH PURPOSES ONLY.

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