Thermo SCIENTIFIC

DATA SHEET
Rev 110602G

Caspase 3 (CPP32) Ab-3 (Clone 3CSP03; same as 4.1.18)

Mouse Monoclonal Antibody

Cat. #MS-1123-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)
Cat. #MS-1123-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)
Cat. #MS-1123-R7 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)
Cat. #MS-1123-PCS (5 Slides) (Positive Control for Histology)
Cat. #MS-1123-PCL (0.1ml) (Positive Control for Western Blot)

Description: Caspase 3 is ubiquitously expressed and like other caspases is synthesized as an inactive (32kDa) proenzyme. Upon activation, Caspase 3 is cleaved at Asp28-Ser29 and Asp175-Ser176 thereby generating two subunits of 17kDa and 12kDa, respectively. Recent studies have implicated that Caspase 3 is associated with the induction of apoptosis. Activation of Caspase 3 occurs in response to variety of apoptotic inducers including Fas mediated apoptosis.

Mol. Wt. of Antigen: 32kDa

Epitope: Not determined

Species Reactivity: Human. Others-not tested.

Clone Designation: 3CSP03 (same as 4.1.18)

Ig Isotype: IgG_{2a}

Immunogen: Recombinant full length human Caspase 3 protein.

Applications and Suggested Dilutions:

- Immunoprecipitation (Native verified)
  (Ab 2µg/mg of protein lysate) (Use Protein A)
- Western Blotting (Ab 1µg/ml for 2hrs at RT)
- Immunohistology (Formalin/paraffin)
  (Ab 1-2µg/ml for 30 min at RT)

* [Staining of formalin-fixed tissues REQUIRES boiling tissue sections in 10mM citrate buffer, pH 6.0, (***NEOMARKERS'*** Cat. #AP-9003), for 10-20 min followed by cooling at RT for 20 min.]

The optimal dilution for a specific application should be determined by the investigator.

Positive Control: Jurkat cells. Tonsil and appendix.

Cellular Localization: Predominantly Cytoplasmic with some nuclear staining

Storage and Stability: Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

Supplied As: 200µg/ml antibody purified from the ascites fluid by Protein A chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml, or Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues.

Suggested References:

1. Krajewska M, et al. Cancer Res 1997 Apr 15;57(8):1605-13.
2. Mallat Z, et al. Circulation 1997 Jul 15; 96(2):424-8.

Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

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Additional Suggested References:

1. Hum Pathol 1997 Aug;28(8):912-21. Cysteine protease CPP32, but not Ich1-L, is expressed in germinal center B cells and their neoplastic counterparts. Xerri L, Devilard E, Ayello C, Brousset P, Reed JC, Emile JF, Hassoun J, Parmentier S, Birg F
2. Cell Death Differ 1998 Dec;5(12):1004-16. In situ immunodetection of activated caspase-3 in apoptotic neurons in the developing nervous system. Srinivasan A, Roth KA, Sayers RO, Shindler KS, Wong AM, Fritz LC, Tomaselli KJ
3. Histopathology 1998 Nov;33(5):432-9. Apoptotic index and apoptosis influencing proteins bcl-2, mcl-1, bax and caspases 3, 6 and 8 in pancreatic carcinoma. Virkajarvi N, Paakko P, Soini Y
4. Breast Cancer Res Treat 1998 Jan;47(2):129-40. Expression of multiple apoptosis-regulatory genes in human breast cancer cell lines and primary tumors. Zapata JM, Krajewska M, Krajewski S, Huang RP, Takayama S, Wang HG, Adamson E, Reed JC
5. J Leukoc Biol 1999 Aug;66(2):336-44. Tumor's other immune targets: dendritic cells. Esche C, Lokshin A, Shurin GV, Gastman BR, Rabinowich H, Watkins SC, Lotze MT, Shurin MR
6. Am J Pathol 1999 May;154(5):1439-47. Characterization of the interleukin-1beta-converting enzyme/ced-3-family protease, caspase-3/CPP32, in Hodgkin's disease: lack of caspase-3 expression in nodular lymphocyte predominance Hodgkin's disease. Izban KF, Wrone-Smith T, Hsi ED, Schnitzer B, Quevedo ME, Alkan S
7. Hepatology 1999 Oct;30(4):920-6. Expression of functional CD40 in human hepatocellular carcinoma. Sugimoto K, Shiraki K, Ito T, Fujikawa K, Takase K, Tameda Y, Moriyama M, Nakano T
8. Br J Cancer 1999 Oct;81(4):592-9. Expression of caspases 3, 6 and 8 is increased in parallel with apoptosis and histological aggressiveness of the breast lesion. Vakkala M, Paakko P, Soini Y
9. Oncol Rep 1999 Mar-Apr;6(2):373-6. The implications of proliferation and apoptosis for lung cancer metastasis. Volm M, Koomagi R

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