

Product Information



Caspase-3 (human) Polyclonal Antibody

Item No. 160745 • Lot. No. XXXXX

- Synonyms:** Apopain; CPP32; ICE3; Yama
- Contents:** This vial contains (100-500 µg of peptide affinity purified IgG, *lot specific*) in 500 µl of TBS, pH *lot specific*, containing *lot specific* mg/ml BSA, 50% glycerol, and 0.02% sodium azide.
- Host:** Rabbit
- Stability:** ≥1 year at -20°C
- Antigen:** Synthetic peptide from human caspase-3 amino acids 166-183 (TELDSGIETDSGVDDDMA), conjugated to KLH (the cysteine at position 170 was substituted with serine for antibody production).¹
- Cross Reactivity:** (+) Human, mouse, baboon, and hamster caspase-3; other species not tested. Recognizes both the proform and active subunits of caspase-3.
Homology of peptide antigen with caspase-3 from other species
- | | |
|---------|-------------------------------|
| Human | TELD SG IETDSGVDDDMA |
| Mouse | TELD c GIETDSG t D e e MA |
| Rat | TELD c GIETDSG t DDDMA |
| Ovine | TELD c GIETDSG e DDMA |
| Chicken | TELD SG I E a DSG p - D e t v |
- Applications:** This polyclonal antibody can be used for detection of caspase-3 by western blot at a dilution of 1:500-1:1,000. Perform immunohistochemistry staining of formalin-fixed paraffin embedded tissue using 1:1,000 dilution. The antibody detects the 34 kDa pro-molecule and 17 kDa active subunits of caspase-3. A whole cell lysate from Jurkat, HeLa, or K562 cells can be used as a positive control.¹ Perform immunohistochemistry staining of formalin-fixed paraffin embedded tissue using 1:1,000 dilution.
- Concentration:** Varies by lot, from 0.2-1.0 mg/ml (100-500 µg/vial). Always 100 µl final working volume for western blotting.

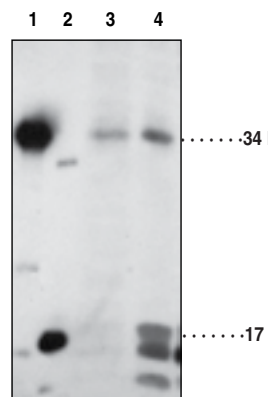
Apoptosis is associated with many diseases and is induced by a family of cell death receptors and their ligands. Cell death signals are transduced by death domain containing adapter molecules and members of the caspase family of proteases. Caspase-3 (CPP32, Yama, Apopain, ICE3) is a key effector caspase in the apoptosis cascade.^{2,3} The enzyme is efficiently activated by caspase-8, caspase-9, and granzyme B resulting in 17 and 12 kDa active subunits formed from the 34 kDa proenzyme.^{1,2} The substrates of caspase-3 are numerous and include pro- and anti-apoptotic proteins, downstream components of the apoptotic machinery (for example, ICAD), as well as structural and homeostatic proteins.^{2,3} DNA fragmentation and the morphological changes associated with this final stage of apoptosis appears to be dependent upon caspase-3.⁴ Caspase-3 is expressed in a variety of tissues and cells.^{1,5}

References

1. Fernandes-Alnemri, T., Litwack, G., and Alnemri, E.S. *J. Biol. Chem.* **269**, 30761-30764 (1994).
2. Wolf, B.B. and Green, D.R. *J. Biol. Chem.* **274**, 20049-20052 (1999).
3. Villa, P., Kaufman, S.H., and Earnshaw, W.C. *Trends Biochem. Sci.* **22**, 388-393 (1997).
4. Jänicke, R.U., Sprengart, M.L., Wati, M.R., *et al. J. Biol. Chem.* **273**, 9357-9360 (1998).
5. Juan, T.S.-C., McNiece, I.K., Jenkins, N.A., *et al. Oncogene* **13**, 749-755 (1996).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/160745



Lane 1: Recombinant human pro-caspase-3 (5 ng)
Lane 2: Recombinant human caspase-3 (active) (5 ng)
Lane 3: HeLa lysate (75 µg)
Lane 4: Jurkat lysate (75 µg)

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees. Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

Copyright Cayman Chemical Company, 12/19/2011

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com