

# Product Data Sheet

## Biotin anti-Caspase-3

**Catalog # / Size:** 622704 / 100 µg

**Clone:** 4-1-18

**Isotype:** Mouse IgG2a, κ

**Immunogen:** Recombinant full length human protein

**Reactivity:** Human, recognizes 32 kD pro-caspase-3 and 17 kD cleaved caspase-3

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C. **Do not freeze.**

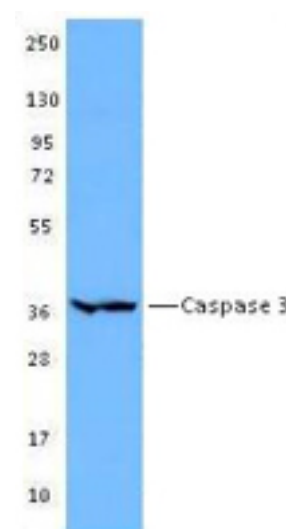
## Applications:

**Applications:** WB - *Quality tested*

**Recommended Usage:** Each lot of this antibody is quality control tested by Western blotting. Western blotting, suggested working dilution(s): Use 5 µg antibody per 5 ml antibody dilution buffer for each mini-gel. It is recommended that the reagent be titrated for optimal performance for each application.

**Description:** Caspase 3 (also known as cpp32, Apopain, Yama, and PARP cleavage protease) is a member of the peptidase family C14. This cytoplasmic caspase functions as a heterotetramer and has two isoforms (one acts as a dominant negative inhibitor). The pro-form of this caspase is approximately 32 kD. Caspase 3 is involved in the caspase activation cascade responsible for apoptosis execution. This caspase cleaves/activates SREBPs, Caspase 6, Caspase 7, and Caspase 9. Caspase 3 is inhibited by c-IAP1, c-IAP2, XIAP, survivin, and Livin and activated by Caspase 6, -8, and -10, granzyme B, Apaf-1 by cleavage into large p17 and small p12 subunits. Active heterodimers form between the large p17 subunit and small p11 subunit of Caspase 7 and vice versa. Caspase 3 has been shown to cleave PARP, huntingtin, androgen receptor, atrophin-1, DNA- PKcs, D4-GDI, hnRNPs C1/C2, U1snRNP, PKC delta, ATM, fodrin, gelsolin, ICAD, RIP, X-IAP, STAT1, topoisomerase I, vimentin, Rb, lamin B, mdm2, and β-catenin. The 4-1-18 monoclonal antibody has been shown to be useful for Western blotting of human caspase 3 (32 kD pro-caspase and 17 kD cleaved caspase).

- Antigen References:**
1. Goldberg Y, *et al.* 1996. *Nat. Genet.* 13:442.
  2. Fernandes-Alnemri T, *et al.* 1996. *P. Natl. Acad. Sci. USA* 93:7464.
  3. Slee E, *et al.* 2001. *J. Biol. Chem.* 276:7320.
  4. Woo M, *et al.* 2003. *Nat. Immunol.* 4:1016.



*Jurkat cell extract was resolved by electrophoresis, transferred to nitrocellulose, and probed with Biotin anti-Caspase 3 antibody (clone 4-1-18). Proteins were visualized using an HRP-conjugated Streptavidin and chemiluminescence detection.*



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