RABBIT ANTI-ACTIVE CASPASE-3 POLYCLONAL ANTIBODY

CATALOG NUMBER:	AB3623	**QUANTITY:**	50 µg
LOT NUMBER:		**CONCENTRATION:**	0.2 mg/mL

ALTERNATE NAMES: CPP-32; apopain; yama protein;CASP3;SCA-1

BACKGROUND: Caspase-3 is the most extensively studied apoptotic protein. Caspase-3 is synthesized as an inactive proenzyme (32 kDa) that is processed in cells undergoing apoptosis by self-proteolysis and/or cleavage by another upstream protease. The processed form of caspase-3 consists of large (17 kDa) and small (12 kDa) subunits which associate to form an active enzyme. The active caspase-3 proteolytically cleaves and activates other caspases, as well as relevant targets in the cells such as PARP and DFF.

SPECIFICITY: AB3623 (90609) detects only the cleaved p17 fragment and does not detect the precursor form in cells undergoing apoptosis.

APPLICATIONS: Western blot: 1:100-1:200 (0.5-4 µg/mL); active apoptotic cells; note when using tissue, levels of active caspase 3 can below detectable levels. Use CC119 (human caspase 3) incubated 30 minutes with 1mM ATP (for activation) as a positive control on westerns. Alternatively, neuronal culture preparations incubated with staurosporine (0.5µM, 10-18hr) typically give a strong caspase 3 signal.

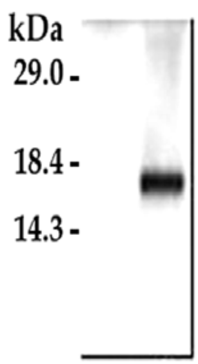

Figure shows active Caspase 3 protein detected in an extract (25 µg) from HeLa cells treated with Camptothecin to induce apoptosis.

Immunohistochemistry: 1:10 dilution (10-20 µg/mL), AB3623 has reacted successfully in 4% PFA fixed, paraffin-embedded mouse tissue sections. See method under protocols tab at (http://www.chemicon.com/Product/ProductDataSheet.asp?ProductItem=AB3623) other species and fixatives are not tested.

Optimal working dilutions must be determined by end user.

SPECIES REACTIVITY: Human, Mouse, Rat. Reactivity with other species has not been determined.

PRESENTATION: Affinity purified immunoglobulin presented as liquid in PBS, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

STORAGE/HANDLING: Maintain frozen at -20°C. For optimal storage, aliquot and freeze at -20°C. Avoid repeated freeze/thaw cycles.

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REFERENCES:

Niquet, J *et al*. (2003). Hypoxic neuronal necrosis: Protein synthesis-independent activation of a cell death program. *PNAS, USA* **100**(**5**):2825-2830.

Patry, C *et al.* (2003). Small Interfering RNA-Mediated Reduction in Heterogeneous Nuclear Ribonucleoparticule A1/A2 Proteins Induces Apoptosis in Human Cancer Cells but not in Normal Mortal Cell Lines . *Can Res.* **63**:7679-7688.

Williams, ST *et al.* (2003). Identification of the primary caspase 3 cleavage site in alpha II-spectrin during apoptosis. *Apoptosis* **8**(**4**):353-361.

Cheng, C. Zochodae DW (2003). Sensory Neurons With Activated Caspase-3 Survive Long-Term Experimental Diabetes. *Diabetes* **52**:2363-2371.

Related: Fernando, P *et al.* (2002). Caspase 3 activity is required for skeletal muscle differentiation. *PNAS, USA* **99**(**17**):11025-11030.

Important Note: *During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 μL or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.*

For research use only; not for use as a diagnostic.

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