

Anti-Caspase 3, active (cleaved) form

Polyclonal Antibody

Cat. # AB3623

Lot # LV1573681

pack size: 50 µg

Store at -20°C

FOR RESEARCH USE ONLY
NOT FOR USE IN HUMANS



Certificate of Analysis

page 1 of 3

| Applications | Species Cross-Reactivity | Antibody Isotype | Epitope/Region | Host Species | Molecular Weight | Accession # |
|---------------|--------------------------|------------------|----------------|--------------|------------------|-------------|
| WB, IF, IH(P) | H, M, R | N/A | N/A | Rb | 17 kDa | NP_004337 |

Background

Caspase-3 (CPP32, Apopain) 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.

Presentation

Purified rabbit polyclonal in buffer containing PBS, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

Concentration

0.2 mg/mL

Specificity

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

Species Cross-reactivity

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

Immunogen

Cleavage specific synthetic peptide sequence (proprietary).

Molecular Weight

17 kDa

Method of Purification

Immunoaffinity Purified

Storage and Handling

Stable for 1 year at -20°C from date of receipt. For optimal storage of the product, aliquot and freeze at -20°C.

Handling Recommendations: Upon first thaw, and prior to removing the cap, centrifuge the vial and gently mix the solution. Aliquot into microcentrifuge tubes and store at -20°C. Avoid repeated freeze/thaw cycles, which may damage IgG and affect product performance. Note: Variability in freezer temperatures below -20°C may cause glycerol containing solutions to become frozen during storage.

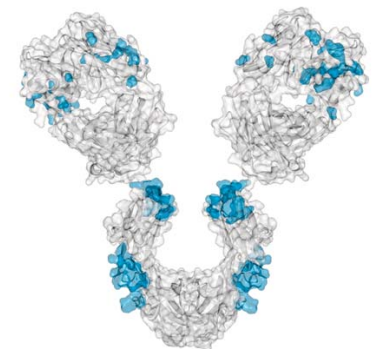
Control

Tonsil and appendix tissue. Jurkat cells induced for apoptosis with recombinant soluble TRAIL and staurosporine treated mouse 3T3 cell lysates Skin/Tumor, Embryo.

Research Applications

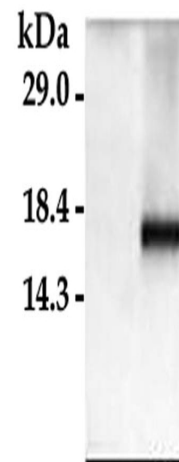
Western Blot Analysis: 1:100-1:200 (0.5-4 µg/mL) dilution of active apoptotic cells we used to detect Caspase-3.

Note when using tissue, levels of active caspase 3 can be below detectable levels. Use CC119 (human caspase 3) incubated 30 minutes with 1 mM ATP (for activation) as a positive control on westerns. Alternatively, neuronal culture preparations incubated with staurosporine (0.5 µM, 10-18 hr) typically give a strong caspase 3 signal.



References

- Williams, S.T., et al. (2003). *Apoptosis*. 8(4):353-361.
- Cheng, C. Zochodae DW., et al. (2003). *Diabetes*. 52:2363-2371.
- Patry, C., et al. (2003). *Can Res*. 63:7679-7688.
- Niquet, J., et al. (2003). *PNAS, USA*. 100(5):2825-2830.
- Fernando, P., et al. (2002). *PNAS, USA*. 99(17):11025-11030.



Western Blot Analysis:
Representative image from a previous lot.
Lane 1: Untreated non-apoptotic HeLa cell extract.
Lane 2: HeLa cells treated with Camptothecin (apoptotic).

APPLICATION LEGEND: WB Western Blotting IP Immunoprecipitation IC Immunocytochemistry IF Immunofluorescence
IH Immunohistochemistry (Tissue) IH(P) Immunohistochemistry (Paraffin)

SPECIES LEGEND: H Human M Mouse R Rat Rb Rabbit WR Most Common Vertebrates

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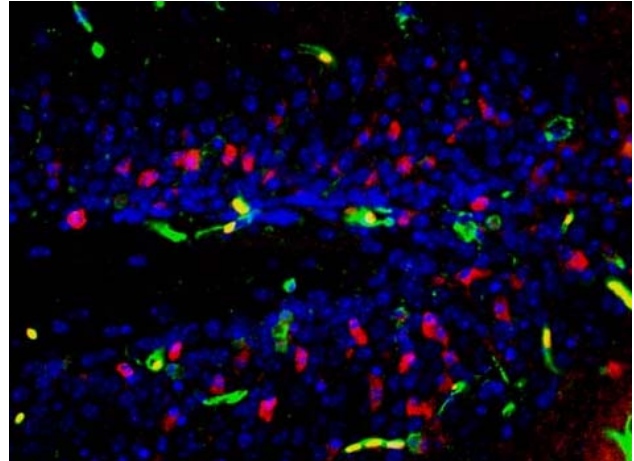
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Additional Research Applications

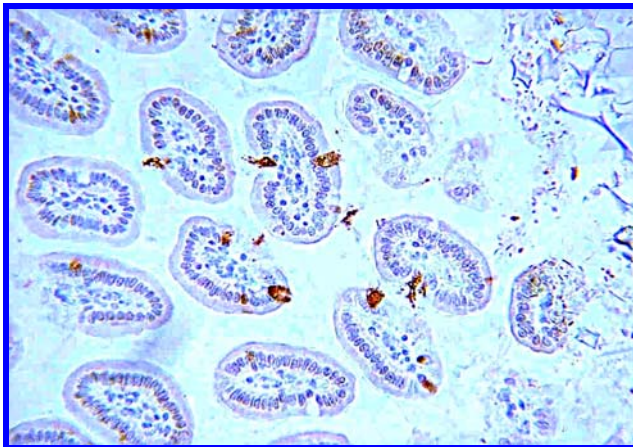
Immunofluorescence: Representative image from a previous lot.

Rabbit anti-Caspase 3, Active (Catalog Number AB3623). Localization of Active Caspase (red) in trimethyltin (TMT) treated mouse brain (dentate gyrus (hippocampus)) 24 hours after treatment. The green staining is lectin-Alexafluor® 488 stain which is specific for microglia and vascular endothelial cells. The blue staining is DAPI. Photo courtesy of Dr. Robert Wine, NIEHS.

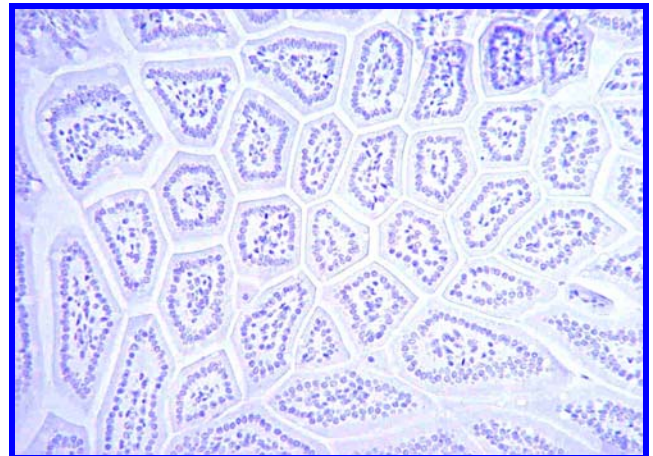


Immunohistochemistry(paraffin): Representative images from a previous lot.

Optimal Staining of Caspase-3 Monoclonal Antibody: Mouse Small Intestine



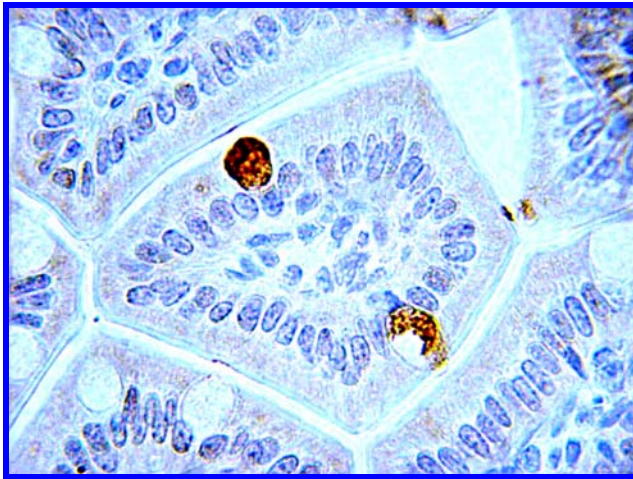
Caspase-3 (AB3623, Polyclonal) staining of Mouse Small Intestine, tissue pretreated with citrate buffer, pH 6.0. pAb at 5.0µg/mL, IHC-Select detection with HRP-DAB. Immunoreactivity is seen in involuting goblet cells.



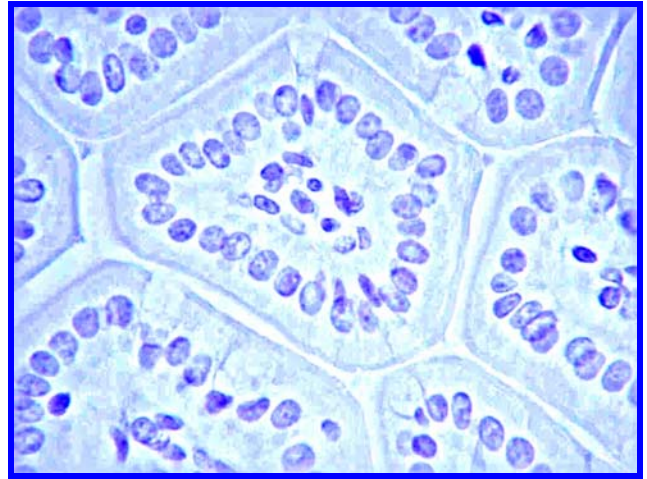
Negative control staining of Mouse Small Intestine, tissue pretreated with citrate buffer, pH 6.0. Negative Control Reagent, IHC-Select Detection with HRP-DAB. No signal detected.

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Caspase-3 (AB3623, Polyclonal) staining of Mouse Small Intestine, tissue pretreated with citrate buffer, pH 6.0. pAb at 5.0µg/mL, IHC-Select detection with HRP-DAB. Immunoreactivity is seen in involuting goblet cells.



Negative control staining of Mouse Small Intestine, tissue pretreated with citrate buffer, pH 6.0. Negative Control Reagent, IHC-Select Detection with HRP-DAB. No signal detected.

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.

RELATED PRODUCTS (specific)

| cat # | description |
|---------|---|
| 06-735 | ■ Anti-Caspase 3 |
| AB3640 | ■ Anti-Caspase 3 |
| AB3623 | ■ Anti-Caspase 3, active (cleaved) form |
| 05-654 | ■ Anti-Caspase 3, clone 4-1-18 |
| AB1899 | ■ Anti-Caspase 3, large subunit & proform |
| MAB4603 | ■ Anti-Caspase 3, large subunit & proform, clone 3CSP03 |
| MAB4703 | ■ Anti-Caspase 3, large subunit & proform, clone 4-1-18 |
| 04-439 | ■ Anti-Caspase-3 (Active), Rabbit Monoclonal |
| 04-440 | ■ Anti-Caspase-3 (Pro), Rabbit Monoclonal |
| 14-264 | ■ Caspase 3, active |
| CC119 | ■ Human Caspase 3, recombinant human active |
| 17-198 | ■ Caspase 3 Activity Detection Kit |
| APT131 | ■ Caspase 3 Colorimetric Activity Assay Kit, DEVD |
| APT165 | ■ Caspase 3 Colorimetric Activity Assay Kit, DEVD |
| 17-367 | ■ Caspase 3/7 Assay Kit (Ac-DEVD-AMC Substrate) |
| APT403 | ■ CaspaTag™ Caspase 3,7 In Situ Assay Kit, Fluorescein |
| APT423 | ■ CaspaTag™ Caspase 3,7 In Situ Assay Kit, Fluorescein |
| APT503 | ■ CaspaTag™ Caspase 3,7 In Situ Assay Kit, Sulforhodamine |
| APT523 | ■ CaspaTag™ Caspase 3,7 In Situ Assay Kit, Sulforhodamine |
| APT300 | ■ CleavaLite® Caspase 3 Activity Assay Kit |
| 62-245 | ■ siRNA plasmid, pKD-Caspase 3-v2 |
| 62-246 | ■ siRNA plasmid, pKD-Caspase 3-v3 |
| 46-604 | ■ Active Caspase 3 Beadmates™ |
| 12-323 | ■ Caspase 3 Fluorometric Substrate |

RELATED PRODUCTS (non-specific)

| cat # | description |
|-------------|--|
| IPVH00010 | ■ Immobilon-P 26.5 cm x 3.75 m Roll PVDF 0.45 µm |
| IPFL00010 | ■ Immobilon-FL 26.5 cm x 3.75 m Roll PVDF 0.45 µm |
| IPVH07850 | ■ Immobilon-P 7 x 8.4 cm PVDF 0.45 mm (sheet) 50/pk |
| ISEQ00010 | ■ Immobilon-P SQ 26.5 cm x 3.75 m 1 roll PVDF 0.2 µm |
| ISEQ07850 | ■ Immobilon-P 7 x 8.4 cm PVDF 0.2 mm (sheet) 50/pk |
| IPFL07810 | ■ Immobilon-FL 7 x 8.4 cm PVDF 0.45 mm (sheet) 10/pk |
| WBKLS0100 | ■ Immobilon Western Chemilum HRP Substrate 100 mL |
| 17-373 | ■ Spray & Glow™ ECL WB Detection System 1 ea |
| 2060 | ■ Re-Blot Western Blot Recycling Kit |
| 2500 | ■ Re-Blot Plus Western Blot Recycling Kit |
| B2080-175GM | ■ Blot Quick Blocker Membrane Blocking Agent 175G |

■ antibodies ■ Multiplex products ■ biotools ■ cell culture ■ enzymes ■ kits ■ proteins/peptides ■ siRNA/cDNA products

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