

RABBIT ANTI-FRACTIN POLYCLONAL ANTIBODY

CATALOG NUMBER: AB3150 **QUANTITY:** 100 µL

LOT NUMBER:

32 kDa Fragment of beta-Actin C-terminus. **ALTERNATE NAMES: EPITOPE:**

BACKGROUND: During apoptosis, beta actin is cleaved by activated caspases at aspartate 244. This

> cleavage results in the release of approximately 130 amino acids (15 kDa) from the Cterminus of the beta actin subunit to generate a 32 kDa (244 amino acid) N-terminal fragment of actin, known as Fractin. The C-terminus of the Fractin fragment is not antigenic in the native full-length beta actin subunit and therefore presents a novel marker

for distinguishing apoptotic from necrotic cells.

SPECIFICITY: By immunohistochemistry, this antibody only recognizes the 32 kDa Fractin fragment but

> not the full-length beta actin subunit. By western blot, the antibody detects the 32 kDa Fractin fragment but does not appear to recognize the full-length beta-Actin subunit.

Immunohistochemistry/Immunocytochemistry: 1:400-1:1000. 1 hr at 37°C or 4°C overnight. **APPLICATIONS:**

Note: If studying paraffin-embedded tissue, the use of antigen retrieval methods is

recommended.

Western Blot: 1:1000-1:4000 for incubation overnight at 4°C.

Recommended antibody dilution buffer: TBS with 3% BSA and 0.05% Tween 20, pH 7.4

Optimal working dilutions must be determined by end user.

SPECIES REACTIVITY: Human, mouse and rat. Reactivity with other species has not been determined.

K-YELPD peptide representing the last five amino acids of the C-terminus of the 32 kDa **IMMUNOGEN:**

Fractin fragment of beta-Actin. This sequence is absolutely conserved in Fractin fragments from human, mouse, rat, feline, porcine, ovine, bovine, canine, rabbit and guinea pig origin.

CONTROL: Staurosporin treated neuronal cultures.

FORMAT: Whole rabbit serum.

PRESENTATION: Liquid rabbit serum containing no preservatives.

STORAGE/HANDLING: Aliquot and store at -20°C for up to 12 months from date of receipt. Avoid repeated freeze-

thaw cycles.

REFERENCES: Rossiter, J. et al. (2002). Caspase-3 activation and caspase-like proteolytic activity in

human perinatal hypoxic-ischemic brain injury. Acta Neuropathol (Berl.) 103:66-73.

Oo, T. et al. (2002). Distinct nuclear and cytoplasmic localization of caspase cleavage products in two models of induced apoptotic death in dopamine neurons of the substantia

nigra. Exp. Neurol. 175:1-19.

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Chen, T. *et al.* (2001). Inhibition of caspase-3-like activity reduces glutamate induced cell death in adult rat retina. *Brain Res.* **904**:177-188.

Ziol, M. *et al.* (2001). Clinical and biological relevance of hepatocyte apoptosis in alcoholic hepatitis. *J. Hepatol.* **34**:254-260.

Elibol, B. *et al.* (2001). Nitric oxide is involved in ischemia-induced apoptosis in brain: a study in neuronal nitric oxide synthase null mice. *Neuroscience* **105**:79-86.

Lankiewicz S. et al. (2000). Activation of calpain I converts excitotoxic neuron death into a caspase-independent cell death. J. Biol. Chem. 275:17064-17071.

Suurmeijer, A. *et al.* (1999). Fractin immunostaining for the detection of apoptotic cells and apoptotic bodies in formalin-fixed and paraffin-embedded tissue. *Lab. Invest.* **79**:619-620.

Yang, F. *et al.* (1998). Antibody to caspase-cleaved actin detects apoptosis in differentiated neuroblastoma and plaque-associated neurons and microglia in Alzheimer's disease. *Am. J. Pathology* **152**:379-389.

Important Note:

During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of $200 \mu L$ 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.

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