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AP08647SU-N Polyclonal Antibody to Fractin (C-term) - Serum

Alternate names: Fragment of Actin

Quantity: 0.1 ml

Background: Fractin (fragment of Actin) is a Caspase-specific cleavage product of actin and serves as a novel marker of apoptosis-related events. It has recently been reported that Fractin may have a functional role in apoptotic signaling in oligodendrocytes (Schulz, R., et al., Glia, 2009, in press).

Host / Isotype: Rabbit / IgG

Immunogen: Synthetic peptide taken from the C terminus of the 32-kDa Actin fragment.

Format: **State:** Liquid Neat Serum without preservatives.

Applications: **Western Blot:** 1/1000.
Immunohistochemistry: 1/100.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: Specific for the ~ 32 kDa Fractin protein in Western blots with no reactivity to intact actin. There is often a ladder of smaller bands in cells or culture or *in vivo* preparations due to further degradation by other proteases.
The antibody has been shown to detect the processes and cell bodies of degenerating neurons and plaque-associated microglia in Alzheimer's disease. (Ref.1)

Species Reactivity: **Tested:** Human and Rat.

Storage: Store the antibody undiluted (in aliquots) at -20°C.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Yang F, Sun X, Beech W, Teter B, Wu S, Sigel J, et al. Antibody to caspase-cleaved actin detects apoptosis in differentiated neuroblastoma and plaque-associated neurons and microglia in Alzheimer's disease. Am J Pathol. 1998 Feb;152(2):379-89. PubMed PMID: 9466564.
2. Rossiter JP, Anderson LL, Yang F, Cole GM. Caspase-cleaved actin (fractin) immunolabelling of Hirano bodies. Neuropathol Appl Neurobiol. 2000 Aug;26(4):342-6. PubMed PMID: 10931367.
3. Adamec E, Yang F, Cole GM, Nixon RA. Multiple-label immunocytochemistry for the evaluation of nature of cell death in experimental models of neurodegeneration. Brain Res Brain Res Protoc. 2001 Jul;7(3):193-202. PubMed PMID: 11431120.
4. Chen TA, Yang F, Cole GM, Chan SO. Inhibition of caspase-3-like activity reduces glutamate induced cell death in adult rat retina. Brain Res. 2001 Jun 15;904(1):177-88. PubMed PMID: 11516428.
5. Rossiter JP, Anderson LL, Yang F, Cole GM. Caspase-3 activation and caspase-like proteolytic activity in human perinatal hypoxic-ischemic brain injury. Acta Neuropathol. 2002 Jan;103(1):66-73. PubMed PMID: 11841033.

Pictures:

Figure 1. Western blot of colchicine treated Sy5y cell lysate showing specific Immunolabeling of the ~32k cleaved Actin fragment (Fractin).