Anti-APP-C31 (C-terminal fragment of the caspase 3-cleaved APP) antibody, rabbit serum (ACT1)

Product code	74-108
Size	100 µl
Storage	Store 4℃ for short term For long term storage store at -20℃. Aliquot to avoid repeated freezing and thawing.
Concentration	N/A
Buffer	0.05% sodium azide
Purity	Rabbit antiserum
Immunogen	Synthetic peptide corresponding to the N-terminus of caspase 3-generated APP C-terminal 31 amino acids (aa 665-670 of human APP695).
Isotype	Rabbit IgG
Reactivity	Reactive to human, mouse and rat. Specific to the N-terminal end of the caspase 3-generated APP-C31.
Special notes	N/A
Application	1. Western blotting (dilution: 1/3,000-1/1,000) 2. Immunocytechemistry (dilution: 1/1,000-1/500) 3. ELISA These applications were confirmed in the laboratory of Prof. K, Yoshikawa of Osaka University. (ref.3).
Background	The Alzheimer Amyloid Precursor Protein (APP) is a transmembrane protein whose abnormal processing is associated with the pathogenesis of Alzheimer's disease. APP695 lacking the protease inhibitor domain is the predominant form in neuronal tissues. APP695 is cleaved by caspases into the 664-residue amino (N)-terminal fragment that lacks the carboxyl C-terminal 31-residues (APP□C31) and the 31-residues C-terminal fragment (APP-C31). Both fragments might be potent inducers of neuronal apoptosis. An antibody (named ACT1) against the N-terminus of caspase 3-generated APP C-terminal 31 aa of human APP695 (APP-C31) was raised in rabbit.
Data Link	UniProtKB P05067

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.

BioAcademia,Inc. Tel. 81-6-6877-2335 Fax. 81-6-6877-2336 info@bioacademia.co.jp https://www.bioacademia.co.jp/en/

Data Images: 74-108 Anti-APP-C31 (C-terminal fragment of the caspase 3-cleaved APP) antibody, rabbit serum (ACT1)

Fig.1 Immunocytochemistry for APP-C31: Specific reactivity of the antibody ACT1 with C-terminal fragment of the caspase 3-cleaved APP.

NT2 neurons were fixed 72 h after infection with adenovirus vector expressing Amyloid Precursor Protein.

Left image: stained for the N-terminus of APP with P2-1, mouse monoclonal antibody specific for N-terminus of APP (non BioAcademia).

Center image: stained for chromosomal DNA (Hoechst).

Right image: stained for C-terminus of the caspase 3 cleaved APP with anti-APP-C31 antibody (ACT1). Most of APP-accumulating neurons with shrunken and fragmented nuclei contain ACT1-immunoreactivity (arrows), but non-neuronal cells are hardly labeled with ACT1 (arrowheads).

References: This antibody was used in ref.3.

1. Kang HG *et al.* (1987) "The precursor of Alzheimer's disease amyloid A4 protein resembles a cell-surface receptor." *Nature* 325: 33-736 PMID: 2881207
2. Selkoe DJ (1994) "Normal and abnormal biology of the beta-amyloid precursor protein." *Annu. Rev. Neurosci.* 17: 489-517 PMID: 8210185
3. Nishimura I *et al.* (2002) "Cell death induced by a caspase-cleaved transmembrane fragment of the Alzheimer amyloid precursor protein." *Cell Death Differ.* 9: 199-208 PMID: 11840170
4. Nishimura I *et al.* (2003) "Upregulation and antiapoptotic role of endogenous Alzheimer amyloid precursor protein in dorsal root ganglion neurons." *Exp. Cell Res.* 286: 241-251 PMID: 12749853

Related products

74-102 Anti-activated Caspase 3 (p20/p17 subunit) antibody, rabbit serum (ACP3)

74-104 Anti-Amyloid Precursor Protein (APP C-terminus) antibody, rabbit serum (AC1)

74-106 Anti-Amyloid Precursor Protein (APP N-terminus) antibody, rabbit serum (AN2)

74-110 Anti-APP Δ C31 (specific to C-terminal APP Δ 31) antibody, rabbit serum (SAC)

BioAcademia,Inc. Tel. 81-6-6877-2335 Fax. 81-6-6877-2336 info@bioacademia.co.jp https://www.bioacademia.co.jp/en/