

POLYCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No. 74-106EX

Nature **325**:

Anti-Amyloid Precursor Protein (APP N-terminus) antibody,(AN1)

BACKGROUND

The Alzheimer amyloid precursor protein (APP) is an integral membrane protein expressed in many tissues and concentrated in the synapses of neurons. Its primary function is not known, though it has been implicated as a regulator of synapse formation and neural plasticity. APP is best known and most commonly studied as the precursor molecule whose proteolysis generates amyloid beta (A β), a 39- to 42-amino acid peptide whose amyloid fibrillar form is the primary component of amyloid plaques found in the brains of Alzheimer's disease patients. Isoform APP695 lacking the protease inhibitor domain is the predominant form in neuronal tissues. An antibody (named AN2) against the N-terminus of human APP (aa 18-38) was raised in rabbit.

Product type Primary antibodies

Host Rabbit **Source** Serum

Form Antiserum added with 0.05% sodium azide

Volume 100µL

Concentration

Immunogen Synthetic peptide corresponding to the N-terminus (aa 18-38) of human APP

Application notes

ref.2, 3,4 and 5.

1. Western blotting (dilution: 1/3,000-1/1,000) 2. Immunocytechemistry (dilution:

1/1,000-1/500)

Other applications have not been tested.

Optimal dilutions/concentrations should be determined by the end user.

Data Link UniProtKB/Swiss-Prot P05067 (A4_HUMAN)

Reactivity

Specific to human, mouse and rat

Storage

Shipped at 4°C and stored at -20°C

References 1. Kang HG et al. (1987) "The precursor of Alzheimer's disease

This antibody was used in amyloid A4 protein resembles a cell-surface receptor."

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

 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: <u>12749853</u>

Related product #74-104EX anti-APP (C-terminus) antibody

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Anti-Amyloid Precursor Protein (APP N-terminus) antibody, rabbit serum (AN1)

#74-108EX anti-APP (C-terminus of the caspase3-cleaved APP)antibody #74-110EX anti-APP Δ 31(specific to C-terminal APP Δ 31) antibody

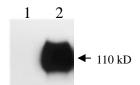


Fig.1 Western blot analysis of APP. Human NT2 neurons infected with adenovirus expressing β -galactosidase (lane 1) or wild-type APP (lane 2) were analyzed by Western blotting using this antibody. Wild-type APP was abundantly expressed in NT2 cells (ref.3).

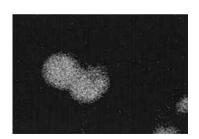


Fig.2 Immunocytochemistry for APP. Mouse dorsal root ganglion cells were treated with this antibody to examine neuronal APP expression (ref.4).

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