



Rabbit antibody to human APP: whole serum

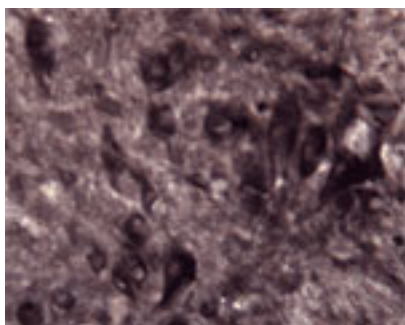
Catalogue No.:	R-070-100
Description:	<p>FUNCTION: Functions as a cell surface receptor and performs physiological functions on the surface of neurons relevant to neurite growth, neuronal adhesion and axonogenesis. Involved in cell mobility and transcription regulation through protein-protein interactions. Can promote transcription activation through binding to APBB1/Tip60 and inhibit Notch signaling through interaction with Numb. Couples to apoptosis-inducing pathways such as those mediated by G(O) and JIP. Inhibits G(o) alpha ATPase activity. Acts as a kinesin I membrane receptor, mediating the axonal transport of beta-secretase and presenilin 1. May be involved in copper homeostasis/oxidative stress through copper ion reduction. Can regulate neurite outgrowth through binding to components of the extracellular matrix such as heparin and collagen I and IV. FUNCTION: Beta-amyloid peptides are lipophilic metal chelators with metal-reducing activity. Bind transient metals such as copper, zinc and iron. Rat and mouse beta-amyloid peptides bind only weakly transient metals and have little reducing activity due to substitutions of transient metal chelating residues. Beta-APP42 may activate mononuclear phagocytes in the brain and elicit inflammatory responses. Promotes both tau aggregation and TPK II-mediated phosphorylation (By similarity). FUNCTION: The gamma-CTF peptides as well as the caspase-cleaved peptides, including C31, are potent enhancers of neuronal apoptosis. SUBUNIT: Binds, via its C-terminus, to the PID domain of several cytoplasmic proteins, including APBB family members, the APBA family, MAPK8IP1, SHC1, Numb and Dab1. Binding to Dab1 inhibits its serine phosphorylation. Also interacts with GPCR-like protein BPP, FPRL1, APPBP1, IB1, KNS2 (via its TPR domains), APPBP2 (via BaSS) and DDB1. In vitro, it binds MAPT via the MT-binding domains. Associates with microtubules in the presence of ATP and in a kinesin-dependent manner. Interacts, through a C-terminal domain, with GNAO1. Amyloid beta-42 binds CHRNA7 in hippocampal neurons. Beta-amyloid associates with HADH2. TISSUE SPECIFICITY: different isoforms in different tissues: kidney. brain. liver. hippocampus, substantia nigra pars compacta and cerebellum. In the cerebellum, all the isoforms are abundantly expressed in Purkinje cells.</p>
Batch No.:	See product label
Unit size:	100 uL
Antigen:	Synthetic peptides (C-ETHLHW HTVAKET, aa: 145-157; C-HAH FQKAKERLEA KHRER, aa: 388-405; C-KKKQYTS IHHGVVE, aa: 724-737) as parts of human APP isoform A conjugated to KLH
Other Names:	Amyloid beta A4 protein; ABPP; Alzheimer disease amyloid protein; Cerebral vascular amyloid peptide; CVAP; Protease nexin-II; PN-II; APPI; PreA4; A4; AD1
Accession:	APP_HUMAN
Produced in:	Rabbit
Purity:	Whole serum
Applications:	IHC. Recommended to be used at a dilution of 1:500 to 1:3000 for immunohistochemistry. This antiserum has not yet been tested for western blot. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.

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- Specificity:** Specificity for APP was confirmed by IHC.
- Cross-reactivity:** This antiserum is known to react with rat APP. Reactivity with other species have not yet been tested.
- Form:** Lyophilised
- Reconstitution:** Reconstitute in 100 uL of sterile water. Centrifuge to remove any insoluble material.
- Storage:** After reconstitution keep aliquots at -20C for a higher stability, and at 2-8C with an appropriate antibacterial agent. Glycerol (1:1) may be added for an additional stability. Avoid repetitive freeze/thaw cycles.
- References:**
1. Wilson, C.A., et al., J. Neurosci. Res. 74: 361-369 (2003).
 2. Andreasen, N., et al., World J. Biol. Psychiatry 4: 147-155 (2003).
 3. Guenette, S.Y. Neuromolecular Med. 4: 147-160 (2003).



IHC on rat spinal cord (free floating cryo section) using Rabbit antibody to human APP: whole serum (R-070-100) at a dilution of 1: 1000.

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