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PRODUCT DATASHEET

Anti-Amyloid-beta precursor protein (APP) Antibody

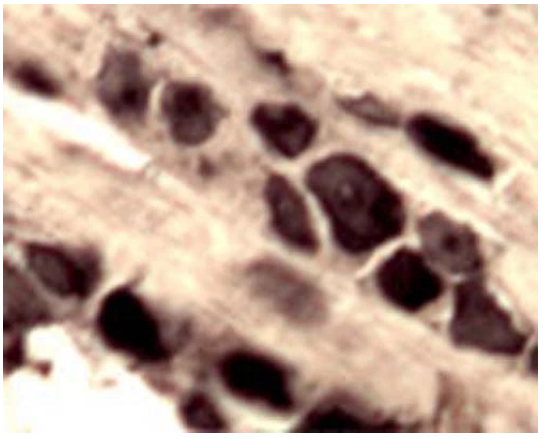
Product Details

Available Variants	100 µL (SKU:R-071-100)
Conjugate	Unconjugated
Isotype	Mixed
Host Species	Rabbit
Format	Whole serum
Physical State	Lyophilized
Applications	IHC
Dilution Ranges	IHC: 1:500-1:3000
Species Reactivity	Mouse, Rat
Immunogen	A synthetic peptide (HMNVQNGKWESDPSGTKTC, aa: 44-62) as part of mouse APP isoform A conjugated to the immunogenic protein Blue Carrier Protein
Specificity	Specificity for APP was confirmed by IHC. This antiserum is known to react with rat APP. Reactivity with other species have not yet been tested.
Storage	Spin vial briefly before opening. Reconstitute in 100 µL sterile-filtered, ultrapure water. Centrifuge to remove any insoluble material. After reconstitution keep aliquots at -20°C for a higher stability, and at 2-8°C with an appropriate antibacterial agent. Glycerol (1:1) may be added for an additional stability. Avoid repetitive freeze/thaw cycles.
UniProt ID	P12023 UniProt Summary: Functions as a cell surface receptor and performs physiological functions on the surface of neurons relevant to neurite growth, neuronal adhesion and axonogenesis. Interaction between APP molecules on neighboring cells promotes synaptogenesis. Involved in cell mobility and transcription regulation through protein-protein interactions. Can promote transcription activation through binding to APBB1-KAT5 and inhibits 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. By acting as a kinesin I membrane receptor, plays a role in axonal anterograde transport of cargo towards synapses in axons. Involved in copper homeostasis/oxidative stress through copper ion reduction. In vitro, copper-metallated APP induces neuronal death directly or is potentiated through Cu(2+)-mediated low-density lipoprotein oxidation. Can regulate neurite outgrowth through binding to components of the extracellular matrix such as heparin and collagen I and IV. The splice isoforms that contain the BPTI domain possess protease inhibitor activity. Induces a AGER-dependent pathway that involves activation of p38 MAPK, resulting in internalization of amyloid-beta peptide and leading to mitochondrial dysfunction in cultured cortical neurons. Provides Cu(2+) ions for GPC1 which are required for release of nitric oxide (NO) and subsequent degradation of the heparan sulfate chains on GPC1.

Country of Origin	United States
Shipping	25°C (ambient)
Expiration	12 months after date of receipt (unopened vial).
Usage Statement	For research use only.
NCBI Gene ID	11820

Product Images



IHC on rat DRG (free floating cryo section) using Rabbit antibody to mouse APP (44-62): whole serum (R-071-100) at a dilution of 1: 1000.