

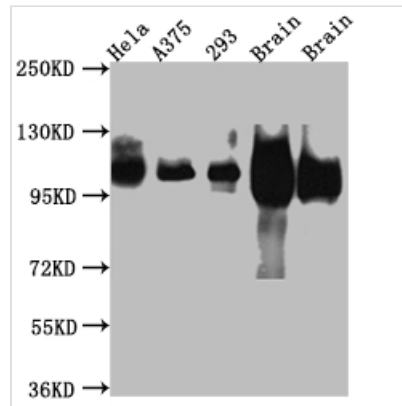


APP Antibody

Product Code	CSB-RA994273A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P05067
Immunogen	A synthesized peptide derived from human Amyloid beta A4
Species Reactivity	Human, Mouse, Rat
Tested Applications	ELISA, WB, IF; Recommended dilution: WB:1:500-1:5000, IF:1:20-1:200
Relevance	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-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 (By similarity). Acts as a kinesin I membrane receptor, mediating the axonal transport of beta-secretase and presenilin 1. 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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience
Gene Names	APP
Accession NO.	6F10



Image



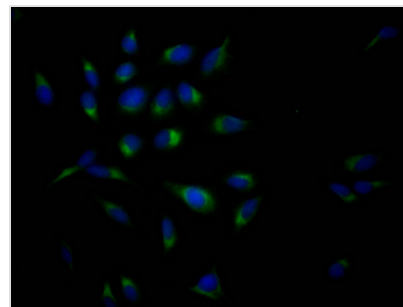
Western Blot

Positive WB detected in: HeLa whole cell lysate, A375 whole cell lysate, HEK293 whole cell lysate, Rat Brain whole cell lysate, Mouse Brain whole cell lysate

All lanes: Amyloid beta A4 antibody at 1:1000
Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 87, 35, 77, 79, 79, 81, 83, 85, 86, 73, 85 kDa

Observed band size: 100 kDa



Immunofluorescence staining of HeLa Cells with CSB-RA994273A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

APP functions as a cell surface receptor and performs physiological functions on the surface of neurons relevant to neurite growth, neuronal adhesion, and axonogenesis. It is involved in cell mobility and transcription regulation through protein-protein interactions. APP plays a central role in the pathophysiology of Alzheimer's disease in large part due to the sequential proteolytic cleavages that result in the generation of β -amyloid peptides ($A\beta$).

The production of this recombinant APP antibody was carried out in vitro. It began with immunization of animals so that the B cells could be obtained. The next step was selection of B cells. The positive cells would be screened out for the next step, single B cell antibody sequencing and cloning. Once the APP antibody sequence was obtained, it would be inserted into a plasmid, which could be transfected into mammalian cells for the expression of APP antibody.