

Product datasheet for **TA383742S**

Amyloid Precursor Protein (APP) Rabbit Monoclonal Antibody [Clone ID: R09-3F7]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R09-3F7
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1/1000-1/5000 IHC: 1/20 ICC/IF: 1/20
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide of human Amyloid Precursor Protein
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 87 kDa; Observed MW: 100 kDa
Gene Name:	amyloid beta precursor protein
Database Link:	Entrez Gene 351 Human P05067



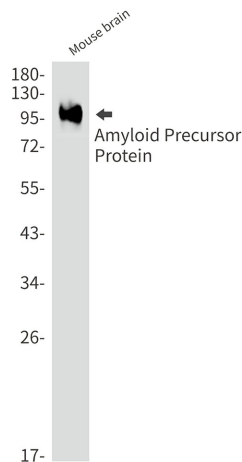
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Background:

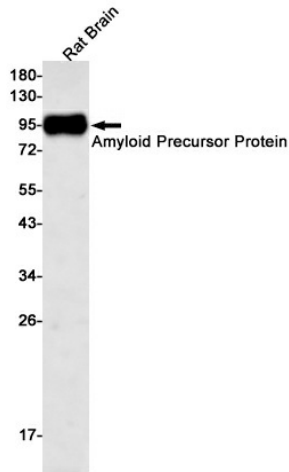
Swiss-Prot Acc.P05067. Functions as a cell surface receptor and performs physiological functions on the surface of neurons relevant to neurite growth, neuronal adhesion and axonogenesis. Involved in cell mobility and transcription regulation through protein-protein interactions. Can promote transcription 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. 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 Cu²⁺-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 Cu²⁺ ions for GPC1 which are required for release of nitric oxide (NO) and subsequent degradation of the heparan sulfate chains on GPC1.

Synonyms:

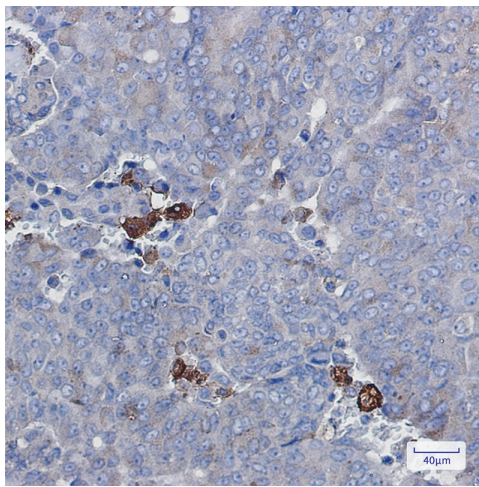
A4; AAA; ABPP; AD1; APPI; CTFgamma; CVAP; OTTHUMP00000096096; PN-II; PN2; PreA4

Product images:

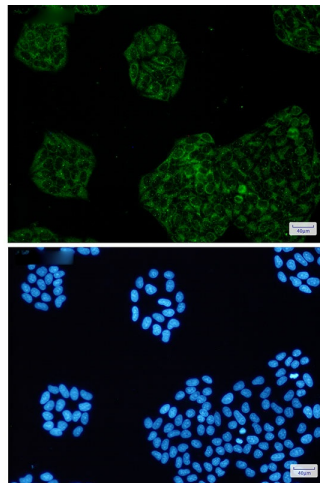
Western blot analysis of Amyloid Precursor Protein in mouse brain lysates using Amyloid Precursor Protein antibody.



Western blot analysis of Amyloid Precursor Protein in rat Brain lysates using Amyloid Precursor Protein antibody.



Immunohistochemistry analysis of paraffin-embedded Human breast cancer using Amyloid Precursor Protein antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



Immunocytochemistry analysis of Amyloid Precursor Protein (green) in HeLa using Amyloid Precursor Protein antibody, and DAPI (blue).