Amyloid Beta Peptide 1-42 (ABETA1-42) ELISA Kit for Goose

PRODUCT OVERVIEW

Product Name	Amyloid Beta Peptide 1-42 (Abeta1-42), ELISA Kit
Full Product Name	Goose Amyloid Beta Peptide 1-42 ELISA Kit
Product Gene Name	Abeta1-42 elisa kit
Species Reactivity	Goose
Preparation and Storage	Store all reagents at 2-8 degree C
Molecular Weight	86,943 Da
OMIM	104300
3D Structure	ModBase 3D Structure for P05067
Related Product Information for Abeta1-42 elisa kit	MBS082004 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Amyloid Beta Peptide 1-42 (Abeta1-42) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing Abeta1-42. The ELISA analytical biochemical technique of the MBS082004 kit is based on Abeta1-42 antibody-Abeta1-42 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect Abeta1-42 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, Abeta1-42. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of Abeta1-42 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Abeta1-42. It may not necessarily be applicable to this product.

NCBI GI #	112927
NCBI GeneID	351
NCBI Accession #	P05067.3
UniProt Primary Accession #	P05067
UniProt Secondary Accession #	P09000; P78438; Q13764; Q13778; Q13793; Q16011; B2R5V1; B4DII8; D3DSD1; D3DSD2; D3DSD3
UniProt Related Accession #	P05067
NCBI Official Full Name	Amyloid beta A4 protein
NCBI Official Synonym Full Names	amyloid beta (A4) precursor protein
NCBI Official Symbol	APP
NCBI Official Synonym Symbols	AAA; AD1; PN2; ABPP; APPI; CVAP; ABETA; PN-II; CTFgamma
UniProt Protein Name	Amyloid beta A4 protein

UniProt Synonym Protein Names	ABPP; APPI; APP; Alzheimer disease amyloid protein; Cerebral vascular amyloid peptide; CVAP; PreA4; Protease nexin-II; PN-IICleaved into the following 14 chains:N-APPSoluble APP-alpha; S-APP-alphaSoluble APP-beta; S-APP-betaC99Beta-amyloid protein 42; Alternative name(s):; Beta-APP42Beta-amyloid protein 40; Alternative name(s):; Beta-APP40C83P3(42)P3(40)C80Gamma-secretase C-terminal fragment 59; Alternative name(s):; Amyloid intracellular domain 59; AICD-59; AID(59); Gamma-CTF(59)Gamma-secretase C-terminal fragment 57; Alternative name(s):; Amyloid intracellular domain 57; AICD-57; AID(57); Gamma-CTF(57)Gamma-secretase C-terminal fragment 50; Alternative name(s):; Amyloid intracellular domain 50; AICD-50; AID(50); Gamma-CTF(50)
UniProt Gene Name	APP
UniProt Synonym Gene Names	A4; AD1; APP; CVAP; PN-II; S-APP-alpha; S-APP-beta; AICD-59; AID(59); AICD-57; AID(57); AICD-50; AID(50)
UniProt Entry Name	A4_HUMAN
NCBI Protein Information	amyloid beta A4 protein; preA4; protease nexin-II; peptidase nexin-II; beta-amyloid peptide; alzheimer disease amyloid protein; cerebral vascular amyloid peptide
NCBI Summary for Abeta1-42	This gene encodes a cell surface receptor and transmembrane precursor protein that is cleaved by secretases to form a number of peptides. Some of these peptides are secreted and can bind to the acetyltransferase complex APBB1/TIP60 to promote transcriptional activation, while others form the protein basis of the amyloid plaques found in the brains of patients with Alzheimer disease. Mutations in this gene have been implicated in autosomal dominant Alzheimer disease and cerebroarterial amyloidosis (cerebral amyloid angiopathy). Multiple transcript variants encoding several different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for Abeta1-42	APP: a cell surface receptor that influences neurite growth, neuronal adhesion and axonogenesis. Cleaved by secretases to form a number of peptides, some of which bind to the acetyltransferase complex Fe65/TIP60 to promote transcriptional activation. The Abeta peptide is released from the cell, its extracellular deposition and accumulation form the main components of amyloid plaques in Alzheimer's disease. Mutations in this gene have been implicated in autosomal dominant Alzheimer disease and cerebroarterial amyloidosis. Can promote transcription activation through binding to Fe65-Tip60 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 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. Induces a RAGE-dependent pathway that activates 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. Binds, via its C-terminus, to the PID domain of several cytoplasmic proteins, including APBB family members, the APBA family, JIP1, SHC1 and, NUMB and DAB1. Binding to DAB1 inhibits its serine phosphorylation. Associates with microtubules in the presence of ATP and in a kinesin-dependent manner. Amyloid beta-42 binds nAChRA7 in hippocampal neurons. Beta-amyloid associates with HADH2. Soluble APP binds, via its N-terminal head, to FBLN1. Expressed in all fetal tissues examined with highest levels in brain, kidney, heart and spleen. Weak expression in liver. In adult brain, highest expression found in the frontal lobe of the cortex and in the anterior perisylvian cortex-opercular gyri. Moderate expression in the cerebellar cortex, the posterior perisylvian cortex-opercular gyri and the temporal associated cortex. Weak expression found in the striate, extra- striate and motor cortices. Expressed in cerebrospinal fluid, and plasma. 10 isoforms of the human protein are produced by alternative splicing. Isoform APP695 is the predominant form in neuronal tissue, isoform APP751 and isoform APP770 are widely expressed in non- neuronal cells. Isoform APP751 is the most abundant form in T-lymphocytes. Appican is expressed in astrocytes. The splice isoforms that contain the BPTI domain possess protease inhibitor activity. Belongs to the APP family. Protein type: Transcription factor; Receptor, misc.; Apoptosis; Membrane protein, integral; Cell surface Chromosomal Location of Human Ortholog: 21q21.3 Cellular Component: Golgi apparatus; extracellular space; cell surface; intracellular membrane-bound organelle; integral to plasma membrane; integral to membrane; dendritic spine; extracellular region; coated pit; intercellular junction; cytosol; ER to Golgi transport vesicle; lipid raft; ciliary rootlet; axon; perinuclear region of cytoplasm; apical part of cell; nuclear envelope lumen; cytoplasm; plasma membrane; synapse; dendritic shaft; spindle midzone; neuromuscular junction; endosome; receptor complex Molecular Function: heparin binding; serine-type endopeptidase inhibitor activity; identical protein binding; protein binding; protease activator activity; enzyme binding; DNA binding; transition metal ion binding; PTB domain binding; acetylcholine receptor binding; receptor binding Biological Process: extracellular matrix organization and biogenesis; adult locomotory behavior; mRNA polyadenylation; locomotory behavior; positive regulation of mitotic cell cycle; protein amino acid phosphorylation; regulation of translation; platelet degranulation; synaptic growth at neuromuscular junction; forebrain development; dendrite development; visual learning; collateral sprouting in the absence of injury; cell adhesion; neuromuscular process controlling balance; neurite development; cholesterol metabolic process; platelet activation; Notch signaling pathway; cellular copper ion homeostasis; regulation of epidermal growth factor receptor activity; axon cargo transport; mating behavior; regulation of multicellular organism growth; endocytosis; axon midline choice point recognition; smooth endoplasmic reticulum calcium ion homeostasis; negative regulation of neuron differentiation; neuron apoptosis; suckling behavior; axonogenesis; ionotropic glutamate receptor signaling pathway; regulation of protein binding; regulation of synapse structure and activity; innate immune response; positive regulation of transcription from RNA polymerase II promoter; response to oxidative stress; blood coagulation; neuron remodeling Disease: Alzheimer Disease
Research Articles on Abeta1-42	**1.** Entrapping of AbetaPP in growth factor receptor (GRB)2-bound cellular vesicles and its clearance via autophagosomes is important for cell survival in an Alzheimer's disease type scenario.
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