

## ARG80980 Mouse/Rat beta-Amyloid (1 - 40) ELISA Kit

Package: 96 wells

Store at: 4°C

### Summary

Product Description	ARG80980 Mouse/Rat beta-Amyloid (1 - 40) ELISA Kit is an Enzyme Immunoassay kit for the quantification of Mouse/Rat beta-Amyloid (1 - 40) in brain extract, cell culture supernatants, serum and plasma.
Tested Reactivity	Ms, Rat
Tested Application	ELISA
Specificity	This ELISA Kit hardly cross-reacts with human A $\beta$ , it is useful for the measurement of mouse and rat A $\beta$ 1-40, when human A $\beta$ is intermingled with the measurement sample.
Target Name	beta Amyloid (1 - 40)
Sensitivity	0.28 pg/ml
Sample Type	Brain extract, cell culture supernatants, serum and plasma
Standard Range	1.56 - 100 pg/ml
Sample Volume	100 $\mu$ L
Alternate Names	AAA; AD1; PN2; ABPP; APPI; CVAP; ABETA; PN-II; CTFgamma; Abpp; APP-C99; APP-C57; AID; APP-C59; S-APP-alpha; E030013M08Rik; Beta-APP42; Gamma-CTF; Beta-APP40; Alzheimer disease amyloid A4 protein homolog; Amyloid beta A4 protein; AG; Adap; Abeta; Amyloidogenic glycoprotein; betaApp; Amyloid intracellular domain 50; Cvap; Amyloid intracellular domain 57; Ag; S-APP-beta; APP; Amyloid intracellular domain 59

### Application Instructions

Assay Time	~3 hours
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### Properties

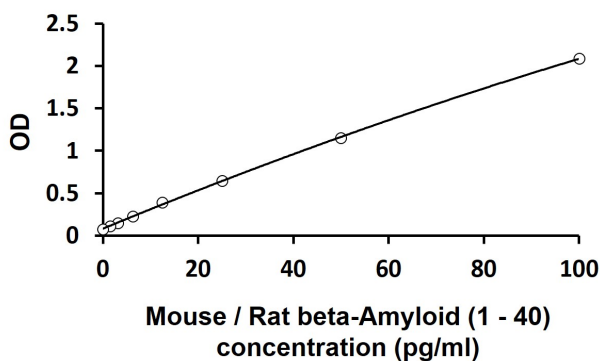
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

### Bioinformation

Database links	<a href="#">GeneID: 11820 Mouse</a> <a href="#">GeneID: 54226 Rat</a> <a href="#">Swiss-port # P08592 Rat</a> <a href="#">Swiss-port # P12023 Mouse</a>
Gene Symbol	App

Gene Full Name	amyloid beta (A4) precursor protein
Background	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. In addition, two of the peptides are antimicrobial peptides, having been shown to have bacteriocidal and antifungal activities. 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, Aug 2014]
Function	<p>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 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 (By similarity). 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 (By similarity). 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 (By similarity). 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.</p> <p>Beta-amyloid peptides are lipophilic metal chelators with metal-reducing activity. Binds 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. Also binds GPC1 in lipid rafts (By similarity).</p> <p>The gamma-CTF peptides as well as the caspase-cleaved peptides, including C31, are potent enhancers of neuronal apoptosis.</p> <p>N-APP binds TNFRSF21 triggering caspase activation and degeneration of both neuronal cell bodies (via caspase-3) and axons (via caspase-6). [UniProt]</p>
Highlight	<p>Related products:  <a href="#">Amyloid beta antibodies</a>; <a href="#">Amyloid beta ELISA Kits</a>; <a href="#">Amyloid beta Duos / Panels</a>;  Related poster download:  <a href="#">Amyloid-beta in Alzheimer's Disease.pdf</a></p>
Resrarch Area	Neuroscience kit

## Images



ARG80980 Mouse/Rat beta-Amyloid (1 - 40) ELISA Kit standard curve image

ARG80980 Mouse/Rat beta-Amyloid (1 - 40) ELISA Kit results of a typical standard run with optical density reading at 450 nm.