Recombinant Human APP Protein, Fc-tagged

Cat. No. APP-62H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Amyloid Precursor is produced by our Mammalian expression system and the target gene encoding Leu18-Lys612 is expressed with a Fc tag at the C-terminus.
Species	Human
Source	Human Cells
ProteinLength	18-612 a.a.
Description	Amyloid precursor protein (APP) is a type I membrane protein with several isoforms due to alternative splicing, performs physiological functions on the surface of neurons relevant to neurite growth, neuronal adhesion and axonogenesis. Of the three major splice isoforms of APP (APP695, APP751, and APP770) APP695 is the predominant neuronal form from which Amyloid beta peptide and transcriptionally-active cleaved intracellular domain of APP (AICD) are preferentially generated by selective processing through the amyloidogenic pathway. Human APP695 consists of a 17 amino acid (aa) signal sequence, a 607 aa extracellular domain (ECD), a 24 aa transmembrane domain, and a 47 aa cytoplasmic domain. Within the ECD, human APP695 shares 97% aa sequence identity with mouse and rat APP695. Amyloid beta is a major molecule implicated in pathogenesis of Alzheimer's disease (AD) and related dementias. AICD regulates expression by direct promoter binding of multiple genes, including APP itself, the beta-secretase, BACE-1 and the Amyloid beta-degrading enzyme, Neprilysin. As such, APP695 plays an important role in brain

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	development, learning and memory, synaptic plasticity, and neurodegeneration including AD.
Form	Lyophilized from a 0.2 um filtered solution of PBS, 5% trehalose, pH7.4.
Molecular Mass	Predicted Molecular Weight: 94.6kDa Apparent Molecular Weight: 120-145kDa, reducing conditions.
AA Sequence	Leu18-Lys612
Endotoxin	Less than 0.1 ng/ug (1 EU/ug).
Purity	>95%
Storage	Lyophilized protein should be stored at < -20 centigrade, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7 centigrade for 2-7 days. Aliquots of reconstituted samples are stable at < -20 centigrade for 3 months. Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Quality Statement	Purity: greater than 95% as determined by reducing SDS-PAGE.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.

GENE INFORMATION

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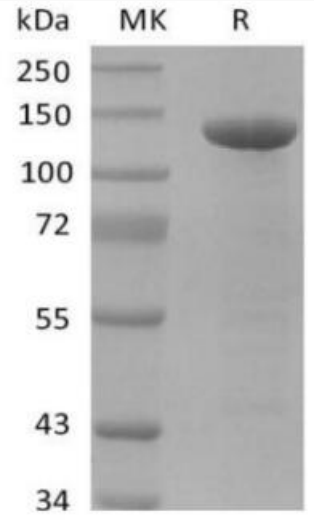
Gene Name	APP amyloid beta precursor protein [Homo sapiens (human)]
Official Symbol	APP
Synonyms	Amyloid Precursor; Amyloid Precursor Protein 695; APP695; AAA; AD1; PN2; ABPP; APPI; CVAP; ABETA; PN-II; preA4; CTFgamma; alpha-sAPP
Gene ID	351
mRNA Refseq	NM_000484.4
Protein Refseq	NP_000475.1
MIM	104760
UniProt ID	P05067
SDS-PAGE	

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