

Recombinant Human Amyloid Precursor (C-FC)

Catalog No. PKSH033887

Note: Centrifuge before opening to ensure complete recovery of vial contents.

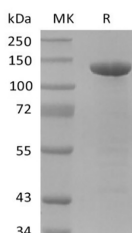
Description

Synonyms	Amyloid Precursor; Amyloid Precursor Protein 695; APP695
Species	Human
Expression Host	HEK293 Cells
Sequence	Leu18-Lys612
Accession	P05067-4
Calculated Molecular Weight	94.6 kDa
Observed molecular weight	120-145 kDa
Tag	C-Fc
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, 5% Trehalose, pH7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

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

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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 development, learning and memory, synaptic plasticity, and neurodegeneration including AD.