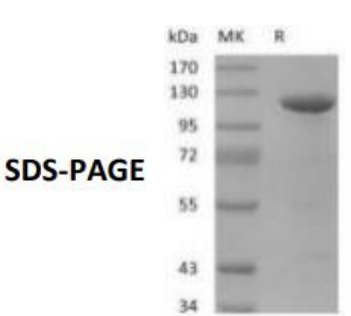


Recombinant Human Amyloid Precursor

Catalog#:P02193 Derived from Human Cells

DESCRIPTION	<p>Recombinant Human Amyloid Precursor is produced by our Mammalian expression system and the target gene encoding Leu18-Lys612 is expressed with a human IgG1 Fc tag at the C-terminus.</p> <p>Accession#: P05067-4</p> <p>Known as: Amyloid Precursor; Amyloid Precursor Protein 695; APP695</p>
FORMULATION	Lyophilized from a 0.2 μ m filtered solution of PBS, 5% Trehalose, pH 7.4.
SHIPPING	<p>The product is shipped at ambient temperature.</p> <p>Upon receipt, store it immediately at the temperature listed below.</p>
STORAGE	<p>Lyophilized protein should be stored at $\leq -20^{\circ}\text{C}$, stable for one year after receipt.</p> <p>Reconstituted protein solution can be stored at 2-8$^{\circ}\text{C}$ for 2-7 days.</p> <p>Aliquots of reconstituted samples are stable at $\leq -20^{\circ}\text{C}$ for 3 months.</p>
RECONSTITUTION	<p><i>Always centrifuge tubes before opening. Do not mix by vortex or pipetting.</i></p> <p><i>It is not recommended to reconstitute to a concentration less than 100$\mu\text{g/ml}$.</i></p> <p>Dissolve the lyophilized protein in distilled water.</p> <p>Please aliquot the reconstituted solution to minimize freeze-thaw cycles.</p>
QUALITY CONTROL	<p>Mol Mass:94.6kDa AP Mol Mass:120-145kDa, reducing conditions.</p> <p>Purity: Greater than 95% as determined by reducing SDS-PAGE.</p> <p>Endotoxin: Less than 0.1ng/μg (1 EU/μg) as determined by LAL test.</p>
BACKGROUND	<p>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 development, learning and memory, synaptic plasticity, and neurodegeneration including AD.</p>
SDS-PAGE	 <p>The SDS-PAGE gel shows a single prominent band in lane R at approximately 120-145 kDa, consistent with the expected molecular weight of the recombinant protein. Lane MK is the molecular weight marker, with bands at 170, 130, 95, 72, 55, 43, and 34 kDa.</p>