

Human APP / Abeta42 (672-713) Pre-formed Fibrils Protein, His Tag

Catalog # APP-H51Ha



BIOSYSTEMS
Acro

Synonyms

ABPP, APPI, Amyloid-beta A4 protein

Source

Human Abeta42 (672-713) Pre-formed Fibrils Protein, His Tag (APP-H51Ha) is expressed from *E. coli* cells. It contains AA Asp 672 - Ala 713 (Accession # [P05067-1](#)).

Predicted N-terminus: Met

Molecular Characterization

APP(Asp 672 - Ala 713) P05067-1	Poly-his
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This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 6.5 kDa.

Application

1. Sonication Conditions, Dissolution, Aliquoting, Storage, and Notes for PFF

Thawing: Thaw PFFs rapidly in a 37 °C water bath, or allow to thaw at room temperature.

Aliquoting: Since PFFs are supplied as a suspension, pipette up and down thoroughly before aliquoting to ensure homogeneity.

Storage: Store at -80 °C at all times; avoid storage at 4 °C or -20 °C, which can induce fibril depolymerization. * α -Syn fibrils cold-denatured to monomers at 0-20 °C and heat-denatured at 60-110 °C.

Sonication: The sonication protocols below are based on cell-based assay conditions.

-Option 1 (Probe Sonicator): Use a probe sonicator (SCIENZ) at 10% power (-95 W), applying 60 pulses of 0.5 s on/0.5 s off (recommended).

-Option 2 (Ultrasonic Bath): Sonicate in an ultrasonic cleaner (40 kHz, 200-400 W) at 37 °C for 1 hour; avoid performing the treatment at 4 °C or 20 °C.

Note: The above sonication protocols are based on cell-based assays; other applications (e.g., in vivo injections) may require optimization-users should determine their optimal settings for their specific use case.

2. Recommendations for PFF Use in Animal Models

Minimize Freeze-Thaw Cycles: For animal studies, it is recommended to use the PFF at once or aliquot before use to avoid repeated freeze-thaw cycles.

PFF Maintenance During Injections: During stereotaxic injections, keep the sonicated PFFs in a 37 °C water bath to prevent re-aggregation or sedimentation.

Purity

>90% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 μ m filtered solution in PBS, pH6.2 with trehalose as protectant.

Contact us for customized product form or formulation.

Shipping and Storage

This product is supplied and shipped on dry ice.

Please avoid repeated freeze-thaw cycles.

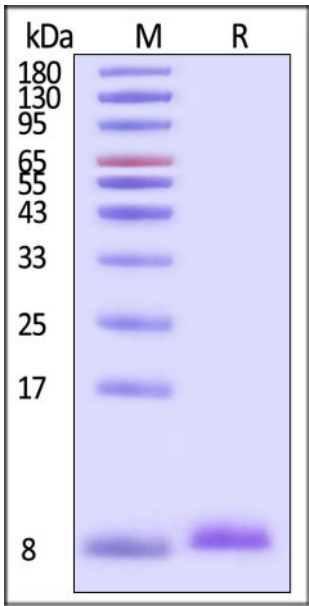
This product is stable after storage at:

- The product should be stored at -70°C or room temperature for short storage. Do not store fibrils on ice or at 4°C;
- The unsonicated fibril is validated to be stable after storage at -70°C for 1 year under sterile conditions;
- The sonicated fibril should be stored at -70°C for not more than 8 weeks.

ACRO Quality Management System

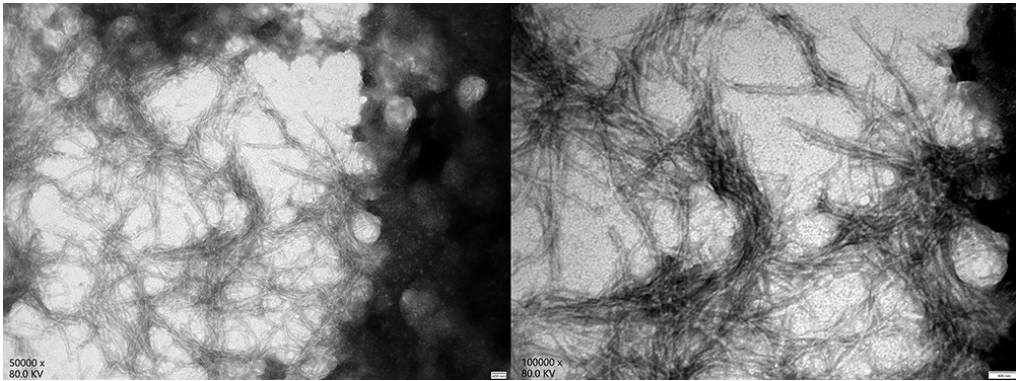
- [QMS\(ISO, GMP\)](#).
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



APP / Abeta42 monomer on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Electron Microscope



Transmission electron microscopy (TEM) of Aβ42 preformed fibrils (Cat. No. APP-H51Ha). Fibrillar structures are visible in negative-stain TEM images of Aβ42 PFFs (Routinely tested).

Background

Amyloid precursor protein (APP) is a type I integral membrane protein ubiquitously expressed in many tissues and concentrated in the synapses of neurons. It has three predominant splice variants: APP695, APP751, and APP770. The majority of APP is cleaved at the plasma membrane by the α -secretase in the non-amyloidogenic pathway. The amyloidogenic pathway starts with β -secretase cleavage by BACE1 on the N-terminal part of the A β domain, releasing sAPP β from a membrane-anchored fragment named β CTF or C99, which is subsequently cleaved by γ -secretase to release A β .



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