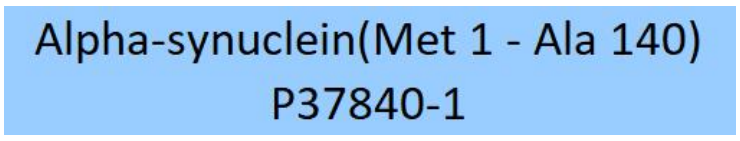
Synonym

SNCA,NACP,PARK1,alpha-Synuclein

Source

Human Alpha-Synuclein Pre-formed Fibrils, Tag Free(ALN-H5115) is expressed from E. coli cells. It contains AA Met 1 - Ala 140 (Accession # P37840-1).
Predicted N-terminus: Met 1

Molecular Characterization



This protein carries no "tag".

The protein has a calculated MW of 14.5 kDa.

Application

THT, cell assay, drug screening and other in vitro experiment.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 μm filtered solution in PBS, pH7.4.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

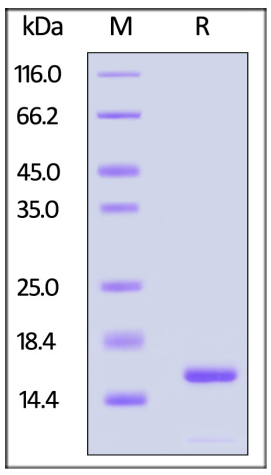
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

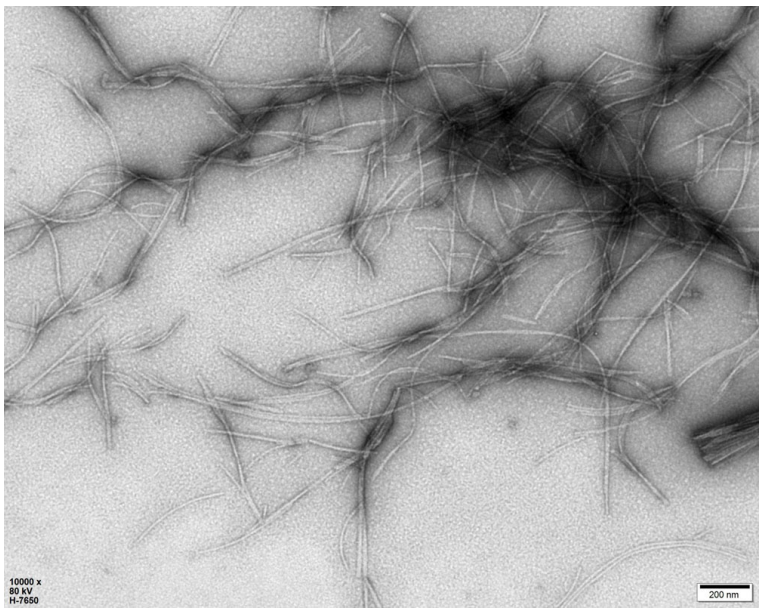
- The product should be stored at -70°C or room temperature for short storage. Do not store fibrils on ice or at 4°C;
- The unsonicated fibril is validated to be stable after storage at -70°C for 1 year under sterile conditions;
- The sonicated fibril should be stored at -70°C for not more than 8 weeks.

SDS-PAGE



Alpha-Synuclein monomer on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Electron Microscope



Transmission electron microscopy (TEM) of Alpha-Synuclein Pre-formed Fibrils (Cat. No. ALN-H5115). Fibril structure is visible on negative stain TEM images of ALN-H5115 (Routinely tested).

Background

Alpha-synuclein is a neuronal protein that plays several roles in synaptic activity such as regulation of synaptic vesicle trafficking and subsequent neurotransmitter release. It acts also as a molecular chaperone in its multimeric membrane-bound state, assisting in the folding of synaptic fusion components called SREs (Soluble NSF Attachment Protein REceptors) at presynaptic plasma membrane in conjunction with cysteine string protein-alpha/DJC5. Abnormalities in alpha-synuclein are implicated in the pathogenesis of Parkinson's disease (PD). Alpha-synuclein is present in Lewy-bodies, the neuropathological hallmark of PD, and the protein and its aggregation have been widely linked to neurotoxic pathways that ultimately lead to neurodegeneration.

Clinical and Translational Updates