

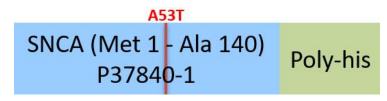
## Synonym

SNCA, NACP, PARK 1, alpha-Synuclein

#### Source

Human Alpha-Synuclein (A53T), His Tag(ALN-H51H5) is expressed from E. coli cells. It contains AA Met 1 - Ala 140 (Accession # P37840-1 (A53T)). Predicted N-terminus: Met 1

### **Molecular Characterization**



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 16.4 kDa. The protein migrates as 18-19 kDa under reducing (R) condition (SDS-PAGE).

#### **Endotoxin**

Less than 1.0 EU per µg by the LAL method.

# **Purity**

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

### **Formulation**

Lyophilized from 0.22  $\mu m$  filtered solution in 100 mM NaAC, pH7.0 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

## Storage

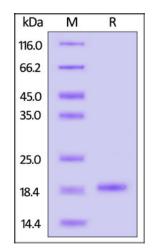
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

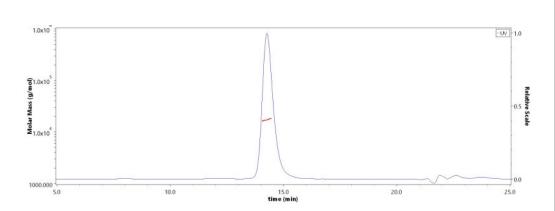
## **SDS-PAGE**



Human Alpha-Synuclein (A53T), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

# **Bioactivity-ELISA**

## **SEC-MALS**



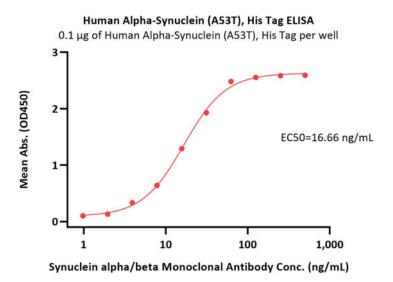
The purity of Human Alpha-Synuclein (A53T), His Tag (Cat. No. ALN-H51H5) is more than 90% and the molecular weight of this protein is around 14-24 kDa verified by SEC-MALS.

Report

# Human Alpha-Synuclein (A53T) Protein, His Tag (MALS verified)







Immobilized Human Alpha-Synuclein (A53T), His Tag (Cat. No. ALN-H51H5) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Synuclein alpha/beta Monoclonal Antibody with a linear range of 1-31 ng/mL (QC 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**

