

## Synonym

SNCA, NACP, PARK 1, alpha-Synuclein

#### Source

Human Alpha-Synuclein, His Tag(ALN-H52H8) is expressed from E. coli cells. It contains AA Met 1 - Ala 140 (Accession # <u>P37840-1</u>).

Predicted N-terminus: Met 1

#### **Molecular Characterization**

# SNCA(Met 1 - Ala 140) P37840-1

Poly-his

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

The protein has a calculated MW of 16.3 kDa. The protein migrates as 19 kDa under reducing (R) condition (SDS-PAGE).

#### **Endotoxin**

Less than 1.0 EU per µg by the LAL method.

# **Sterility**

Negative

## **Purity**

>90% as determined by SDS-PAGE.

#### **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**

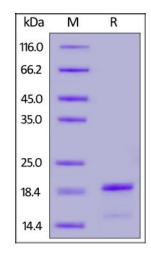
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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, 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%.

# Background



# **Human Alpha-Synuclein Protein, His Tag**

Catalog # ALN-H52H8



Neuronal protein that plays several roles in synaptic activity such as regulation of synaptic vesicle trafficking and subsequent neurotransmitter release. Participates as a monomer in synaptic vesicle exocytosis by enhancing vesicle priming, fusion and dilation of exocytotic fusion pores. Mechanistically, acts by increasing local Ca2+ release from microdomains which is essential for the enhancement of ATP-induced exocytosis. 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. This chaperone activity is important to sustain normal SRE-complex assembly during aging. Plays also a role in the regulation of the dopamine neurotransmission by associating with the dopamine transporter (DAT1) and thereby modulating its activity.

**Clinical and Translational Updates** 

