Catalog # ALN-H52H8



#### Synonym

SNCA,NACP,PARK1,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) Poly-his P37840-1

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  $\mu$ g by the LAL method / rFC 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

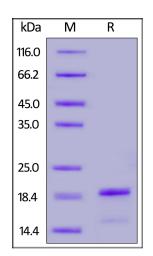
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

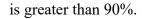
This product is stable after storage at:

- -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



Background



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4/21/2025

# 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.



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