Catalog # ALN-C52H5



Synonym

SNCA,NACP,PARK1,alpha-Synuclein

Source

Cynomolgus Alpha-Synuclein, His Tag(ALN-C52H5) is expressed from E. coli cells. It contains AA Met 1 - Ala 140 (Accession # <u>P61142-1</u>). Predicted N-terminus: Met 1

Molecular Characterization

SNCA(Met 1 - Ala 140) **Poly-his** P61142-1

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

The protein has a calculated MW of 16.4 kDa. The protein migrates as 18-20 kDa under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 1.0 EU per μ g by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μ 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:

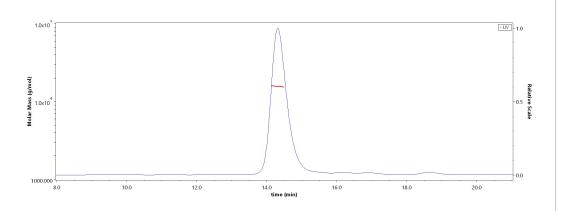
- -20°C to -70°C for 12 months in lyophilized state;
- 70° C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

kDa	Μ	R
116.0		
66.2		
45.0		
35.0		
25.0		
18.4		
14.4	-	

Cynomolgus 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 95%.

SEC-MALS



The purity of Cynomolgus Alpha-Synuclein, His Tag (Cat. No. ALN-C52H5) is more than 90% and the molecular weight of this protein is around 14-20 kDa verified by SEC-MALS.



Bioactivity-ELISA

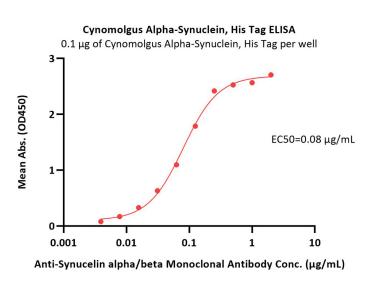








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Immobilized Cynomolgus Alpha-Synuclein, His Tag (Cat. No. ALN-C52H5) at 1 μ g/mL (100 μ L/well) can bind Anti-Synucelin alpha/beta Monoclonal Antibody with a linear range of 0.004-0.25 μ g/mL (QC tested).

Background

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 SNAREs (Soluble NSF Attachment Protein REceptors) at presynaptic plasma membrane in conjunction with cysteine string protein-alpha/DNAJC5. This chaperone activity is important to sustain normal SNARE-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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