



EndoClearPlus Human Recombinant alpha-synuclein protein

Revision Number: 2.0

Last updated: 18March2024

Catalog #	AS-56081
Size	100 µg, 500 µg

Product Name: EndoClearPlus Human Recombinant alpha-synuclein protein (essentially endotoxin free)

Catalog Number: AS-56081

Lot Number: See label on the vial

Amount/size: 100 µg, 500 µg

Source: The sequence (Accession # NP_000336) corresponding to the full-length human α -synuclein protein plus an affinity tag was expressed in *E. coli*. The recombinant α -synuclein protein was purified from bacterial lysate using proprietary method, including tag cleavage. The resulting protein contains an additional Gly at the N-term of the α -synuclein sequence. The calculated molecular mass of the recombinant α -synuclein protein is ~14.5 kDa.

Activity: α -synuclein was assayed for the fibrillation properties using Thioflavin T assay.

Applications: Fibrillation, oligomerization, cell toxicity studies.

Purity: Greater than 90% as determined by SDS-PAGE.

Endotoxin: Less than 0.001 EU per µg/protein as tested by LAL method.

Storage: The purified α -synuclein is supplied as lyophilized powder nearly salt free. Store at 2-4 °C for immediate use within 1-2 weeks or at -80 °C for up to 12 months.

Instructions:

α -synuclein is a major component of Lewy bodies in the affected neurons in Parkinson's disease.¹⁻⁴ This protein consists of a conserved degenerative amino-terminal domain and an acidic carboxyl-terminal with higher sequence divergence.¹⁻⁴ α -synuclein is predominantly expressed in brain: specifically in cerebellum, thalamus, neocortex, hippocampus, and striatum regions.¹⁻² Other tissues express α -synuclein at very low levels.¹⁻⁴ The physiological role of α -synuclein is not yet well understood. However, the presence of imperfect KTKEGV lipid interacting repeats suggests that it may be involved in synaptic vesicle homeostasis.³

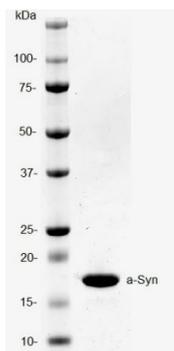


Figure 1. SDS-PAGE of human α -synuclein.
Purified protein was loaded onto 10-20% Tris-HCl gel at 3 μ g/well.



Figure 2. Western Immunoblot of human α -synuclein.
Purified α -synuclein protein was probed with anti- α -synuclein specific antibody.

Related Products

Product Name	Cat. #
Recombinant human α - synuclein, HiLyte Fluor™488 labeled	AS-55457
SensoLyte® Anti-α-Synuclein (Human) ELISA Kit	AS-55550-H
SensoLyte® Anti-α-Synuclein (Rat) ELISA Kit	AS-55550-R
EndoClear Recombinant human α - synuclein	AS-55555
Recombinant human α - synuclein, biotin labeled	AS-55581
EndoClear Recombinant mOUSE α - synuclein	AS-56082
EndoClear Recombinant rat α - synuclein	AS-56083

References:

1. Rivers, R. et al. *Protein Science* **17**, 887-898 (2008).
2. Bruening, W. et al. *Cancer*. **88**, 9, 2154-2163 (2000).
3. George M. J. *Genome Biology* **3**, 1, 1-6 (2001).
4. Latawiec, D. et al. *PLoS ONE* **5**, 2, 1-8 (2010).

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