



Product Data Sheet

Product Name:	EndoClear™ Plus 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 was expressed in <i>E. coli</i> . The recombinant α -synuclein protein was purified from bacterial lysate using proprietary method. Endotoxin was further removed by proprietary technique. Molecular weight 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 95% 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 has a mass of 14.5 kDa (140 amino acids long) and 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	

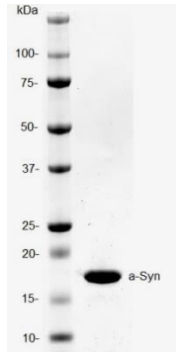


Figure 1. SDS-PAGE of human α -synuclein.
Purified protein was loaded onto 10-20% Tris-HCl gel at 3 µg/well.



Figure2. 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 (1 - 140), HiLyte Fluor™488 labeled	AS-55457
Recombinant Human β - Synuclein (1 - 134)	AS-55458-100 AS-55458-500 AS-55458-1000
SensoLyte® Anti-α-Synuclein (Human) ELISA Kit	AS-55550-H
SensoLyte® Anti-α-synuclein (Rat) ELISA Kit	AS-55550-R
EndoClear™* Human Recombinant alpha - Synuclein	AS-55555-100 AS-55555-500 AS-55555-1000
EndoClear™* Mouse Recombinant alpha - Synuclein	AS-56082-100 AS-56082-500 AS-56082-1000
EndoClear™Plus Recombinant Human alpha - Synuclein	AS-56081-100 AS-56081-500
Recombinant human α - synuclein (1 - 140), biotin labeled	AS-55581
EndoClear™ Rat Recombinant alpha - Synuclein	AS-56083-100 AS-56083-500 AS-56083-1000

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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