

Product Data Sheet

Product Name:	EndoClear™* Human Recombinant alpha-Synuclein Protein (< 0.1 EU per µg protein)	
Catalog Number:	AS-55555	Lot Number: See label on the vial
Amount/size:	100 µg, 500 µg, 1000 µg	
Source:	Full-length recombinant human alpha-synuclein (GenBank Accession # NP_000336) was expressed in <i>E. coli.</i> , and 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 0.1 EU per µg protein as tested by LAL method. *For more stringent applications, EndoClear™ Plus offers even lower endotoxin levels (AS-56081).	
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.	

*previously named EndoFree Human Recombinant alpha-synuclein Protein

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

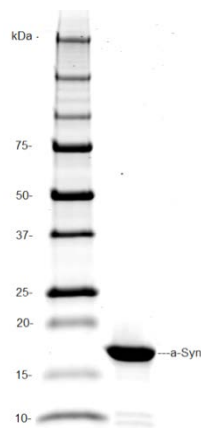


Figure 1.



Figure 2

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

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

Related Products:

Product Name	Cat. #
EndoClear™ <i>Plus</i> Human Recombinant human α - synuclein	AS-56081-100 AS-56081-500
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
Recombinant human α - synuclein (1 - 140), biotin labeled	AS-55581

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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