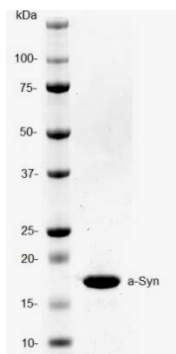




## Product Data Sheet

Product Name:	EndoClear™ Plus Human Recombinant alpha-Synuclein Protein ( $< 0.001$ EU per $\mu\text{g}$ protein) Improved formulation with even lower endotoxin levels*	
Catalog Number:	AS-56081	Lot Number: See label on the vial
Amount/size:	100 $\mu\text{g}$ , 500 $\mu\text{g}$	
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 $\alpha$ -synuclein protein is 14.5 kDa.	
Activity:	$\alpha$ -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 $\mu\text{g}$ protein as tested by LAL method.  *For more stringent applications, EndoClear™ Plus offers the lowest endotoxin research grade alpha-synuclein protein available in the market.	
Storage:	The purified $\alpha$ -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:	$\alpha$ -synuclein is a major component of Lewy bodies in the affected neurons in Parkinson's disease. <sup>1-4</sup> 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. <sup>1-4</sup> $\alpha$ -synuclein is predominantly expressed in brain: specifically in cerebellum, thalamus, neocortex, hippocampus, and striatum regions. <sup>1-2</sup> Other tissues express $\alpha$ -synuclein at very low levels. <sup>1-4</sup> The physiological role of $\alpha$ -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. <sup>3</sup>	



**Figure 1. SDS-PAGE of human  $\alpha$ -synuclein.**  
Purified protein was loaded onto 10-20% Tris-HCl gel at 3  $\mu\text{g}$ /well.



**Figure2. Western Immunoblot of human  $\alpha$ -synuclein.**  
Purified  $\alpha$ -synuclein protein was probed with anti- $\alpha$ -synuclein specific antibody.

## Related Products

Product Name	Cat. #
EndoClear™ Human Recombinant human $\alpha$ - synuclein	AS-55555-100 AS-55555-500 AS-55555-1000
Recombinant human $\alpha$ - synuclein (1 - 140), HiLyte Fluor™488 labeled	AS-55457
Recombinant Human $\beta$ - synuclein (1 - 134)	AS-55458-100 AS-55458-500 AS-55458-1000
SensoLyte® Anti- $\alpha$ -synuclein (Human) ELISA Kit	AS-55550-H
Recombinant human $\alpha$ - 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).

*For Research Use Only!*