# ANASPEC Product Information Sheet

Product Name:	EndoClear Rat Recombinant alpha-Synuclein Protein	
Catalog Number:	AS-56083	
Lot Number:	See label on the vial	
Amount/size:	100 μg, 500 μg, 1000 μg	
Source:	The sequence (Accession # NP_062042) corresponding to the full length rat $\alpha$ -synuclein protein was expressed in <i>E. coli</i> . The recombinant $\alpha$ -synuclein protein was purified from bacteria lysate using proprietary method. The 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 90% as determined by SDS-PAGE.	
Endotoxin:	Less than 0.1 EU per $\mu$ g/protein as tested by LAL method.	
Storage:	The purified $\alpha$ -synuclein is supplied as lyophilized powder salt free. Store at 2-4 °C for immediate use within 1-2 weeks or at -80 °C for long-term storage.	

#### Instructions:

A-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> A-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  $\alpha$ -ynuclein 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>

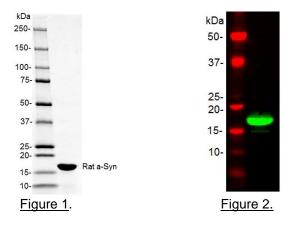


Figure 1. Rat  $\alpha$ -synuclein on SDS-PAGE. Purified protein was loaded onto 10-20% Tris-HCl gel at 3  $\mu$ g/well.

Figure 2. Western Immunoblot of rat  $\alpha$ -synuclein. Purified rat  $\alpha$ -synuclein protein was probed with anti- $\alpha$ -synuclein specific antibody.

### **Related Products**

Product Name	Cat. #
Recombinant human α - synuclein (1 - 140), HiLyte Fluor™488 labeled	55457

©AnaSpec, Inc. 34801 Campus Drive, Fremont, CA 94555 Tel: (800)-452-5530 | service@anaspec.com | www.anaspec.com

Recombinant Human β - Synuclein (1 - 134)	55458
SensoLyte® Anti-α-Synuclein (Human) ELISA Kit	55550
EndoClear™* Human Recombinant alpha - Synuclein	55555
EndoClear™Plus Recombinant Human alpha - Synuclein	56081
Recombinant human α - synuclein (1 - 140), biotin labeled	55581
EndoClear™ Recombinant Mouse alpha - Synuclein	56082

## **References:**

- 1. Rivers, R. et al. Protein Science 17, 887-898 (2008).
- Bruening, W. et al. *Cancer.* 88, 9, 2154-2163 (2000).
  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!