

## EndoClear Rat Recombinant alpha-Synuclein Protein

Revision Number: 2.0

Last updated: 18March2024

<b>Catalog #</b>	<b>AS-56083</b>
Size	100 µg, 500 µg, 1000 µg

**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 a-synuclein protein plus an affinity tag was expressed in *E. coli*. The recombinant a-synuclein protein was purified from bacterial lysate using a proprietary method, including tag cleavage. The resulting protein contains an additional Gly at the N-term of the a-synuclein sequence. The calculated molecular mass of the recombinant a-synuclein protein is ~14.44 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 0.1 EU per µg/protein as tested by LAL method.

**Storage:** The purified α-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 up to 12 months.

### Instructions:

A-synuclein is a major component of Lewy bodies in the affected neurons in Parkinson's disease.<sup>1-4</sup> This protein 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 α-synuclein at very low levels.<sup>1-4</sup> 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.<sup>3</sup>

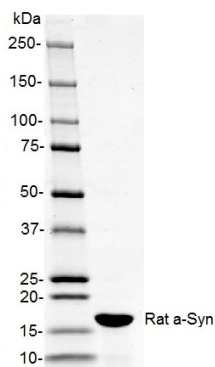


Figure 1.

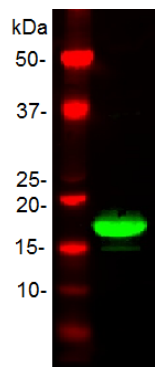


Figure 2.

### Figure 1. Rat α-synuclein on SDS-PAGE.

Purified protein was loaded onto 10-20% Tris-HCl gel at 3 µg/well.

### Figure 2. Western Immunoblot of rat α-synuclein.

Purified rat α-synuclein protein was probed with anti-α-synuclein specific antibody.

## Related Products

Product Name	Cat. #
<a href="#">Recombinant human <math>\alpha</math> - synuclein, HiLyte Fluor™488 labeled</a>	<b>55457</b>
<a href="#">Sensolyte® Anti-<math>\alpha</math>-Synuclein (Human) ELISA Kit</a>	<b>55550-H</b>
<a href="#">Sensolyte® Anti-<math>\alpha</math>-Synuclein (Rat) ELISA Kit</a>	<b>55550-R</b>
<a href="#">EndoClear™* Human Recombinant alpha - Synuclein</a>	<b>55555</b>
<a href="#">EndoClear™Plus Recombinant Human alpha - Synuclein</a>	<b>56081</b>
<a href="#">Recombinant human <math>\alpha</math> - synuclein, biotin labeled</a>	<b>55581</b>
<a href="#">EndoClear™ Recombinant Mouse alpha - Synuclein</a>	<b>56082</b>

## 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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