



## EndoClearPlus Human Recombinant alpha-synuclein protein

Revision Number: 2.0

Last updated: 18March2024

<b>Catalog #</b>	<b>AS-56081</b>
Size	100 µg, 500 µg

**Product Name:** EndoClearPlus 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  $\alpha$ -synuclein protein plus an affinity tag was expressed in *E. coli*. The recombinant  $\alpha$ -synuclein protein was purified from bacterial lysate using proprietary method, including tag cleavage. The resulting protein contains an additional Gly at the N-term of the  $\alpha$ -synuclein sequence. The calculated molecular mass 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.

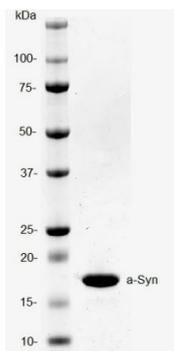
**Purity:** Greater than 90% as determined by SDS-PAGE.

**Endotoxin:** Less than 0.001 EU per µg/protein as tested by LAL method.

**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 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  $\mu$ g/well.



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

## Related Products

Product Name	Cat. #
<a href="#">Recombinant human <math>\alpha</math> - synuclein, HiLyte Fluor™488 labeled</a>	<b>AS-55457</b>
<a href="#">SensoLyte® Anti-<math>\alpha</math>-Synuclein (Human) ELISA Kit</a>	<b>AS-55550-H</b>
<a href="#">SensoLyte® Anti-<math>\alpha</math>-Synuclein (Rat) ELISA Kit</a>	<b>AS-55550-R</b>
EndoClear Recombinant human $\alpha$ - synuclein	<b>AS-55555</b>
<a href="#">Recombinant human <math>\alpha</math> - synuclein, biotin labeled</a>	<b>AS-55581</b>
EndoClear Recombinant mOUSE $\alpha$ - synuclein	<b>AS-56082</b>
EndoClear Recombinant rat $\alpha$ - synuclein	<b>AS-56083</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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