



Product Data Sheet

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| Product Name: | EndoClear™ Plus 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 α -synuclein protein was expressed in <i>E. coli</i> . The recombinant α -synuclein protein was 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 0.001 EU per µg protein as tested by LAL method. | |
| 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. | |
| 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 | |

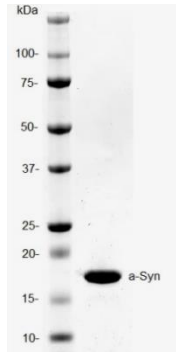


Figure 1. SDS-PAGE of human α -synuclein.
Purified protein was loaded onto 10-20% Tris-HCl gel at 3 µg/well.



Figure2. Western Immunoblot of human α -synuclein.
Purified α -synuclein protein was probed with anti- α -synuclein specific antibody.

Related Products:

| Product Name | Cat. # |
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| 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 |
| SensoLyte® Anti-α-synuclein (Rat) ELISA Kit | AS-55550-R |
| EndoClear™* Human Recombinant alpha - Synuclein | AS-55555-100 AS-55555-500 AS-55555-1000 |
| EndoClear™* Mouse Recombinant alpha - Synuclein | AS-56082-100 AS-56082-500 AS-56082-1000 |
| EndoClear™Plus Recombinant Human alpha - Synuclein | AS-56081-100 AS-56081-500 |
| Recombinant human α - synuclein (1 - 140), biotin labeled | AS-55581 |
| EndoClear™ Rat Recombinant alpha - Synuclein | AS-56083-100 AS-56083-500 AS-56083-1000 |

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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