Product Datasheet

Human α-Synuclein Monomers

Sequence	MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVL YVGSKTKEGVVHGVATVAEKTKEQVTNVGGAVVTGVTA VAQKTVEGAGSIAAATGFVKKDQLGKNEEGAPQEGILED MPVDPDNEAYEMPSEEGYQDYEPEA
Swiss Prot	P37840
Gene ID	6622
Accession #	NP_000336.1
Species	Human
Amino acids	1-140, full length protein
Conjugates/Tags	No Tag
Molecular weight	14 kDa (14,460 Da)
Nature	Recombinant, expressed in Escherichia coli
Certificate of analysis	Certified > 95 % purity by SDS-PAGE. Full characterization provided in Figure 1.
Field of Use	Not for use in humans. For research purposes only.
Applications	In vitro assays, cellular assays, animal studies or as standards in WB, SDS-PAGE, ELISA, and other immunoassays.
Form	Shipped in solution on dry ice.
Preparation	Protein was dissolved in PBS at 1 mg/ml.
Storage	Store at -80°C upon receipt. Following first thaw, aliquot and store at -80°C.
Handling	We recommend avoiding repeated freeze-thaw cycles.
Product Citation	In case of publication or scientific presentations using this product, please cite as “Human α-Synuclein Monomers (ND Biosciences SA, Switzerland, Catalogue #ND001, Lot #12/20-001.001)”. Characterization data (Figure 1) remains property of ND Biosciences and is not to be used in any publications without written permission from ND Biosciences.
Safety measures	This product is an active protein and may elicit a biological response in vivo, handle with caution.
References	Kumar ST, Donzelli S, Chiki A, Syed MMK, Lashuel HA. A simple, versatile and robust centrifugation-based filtration protocol for the isolation and quantification of α-synuclein monomers, oligomers and fibrils: Towards improving experimental reproducibility in α-synuclein research. J Neurochem. 2020;153(1):103-119. doi:10.1111/jnc.14955.

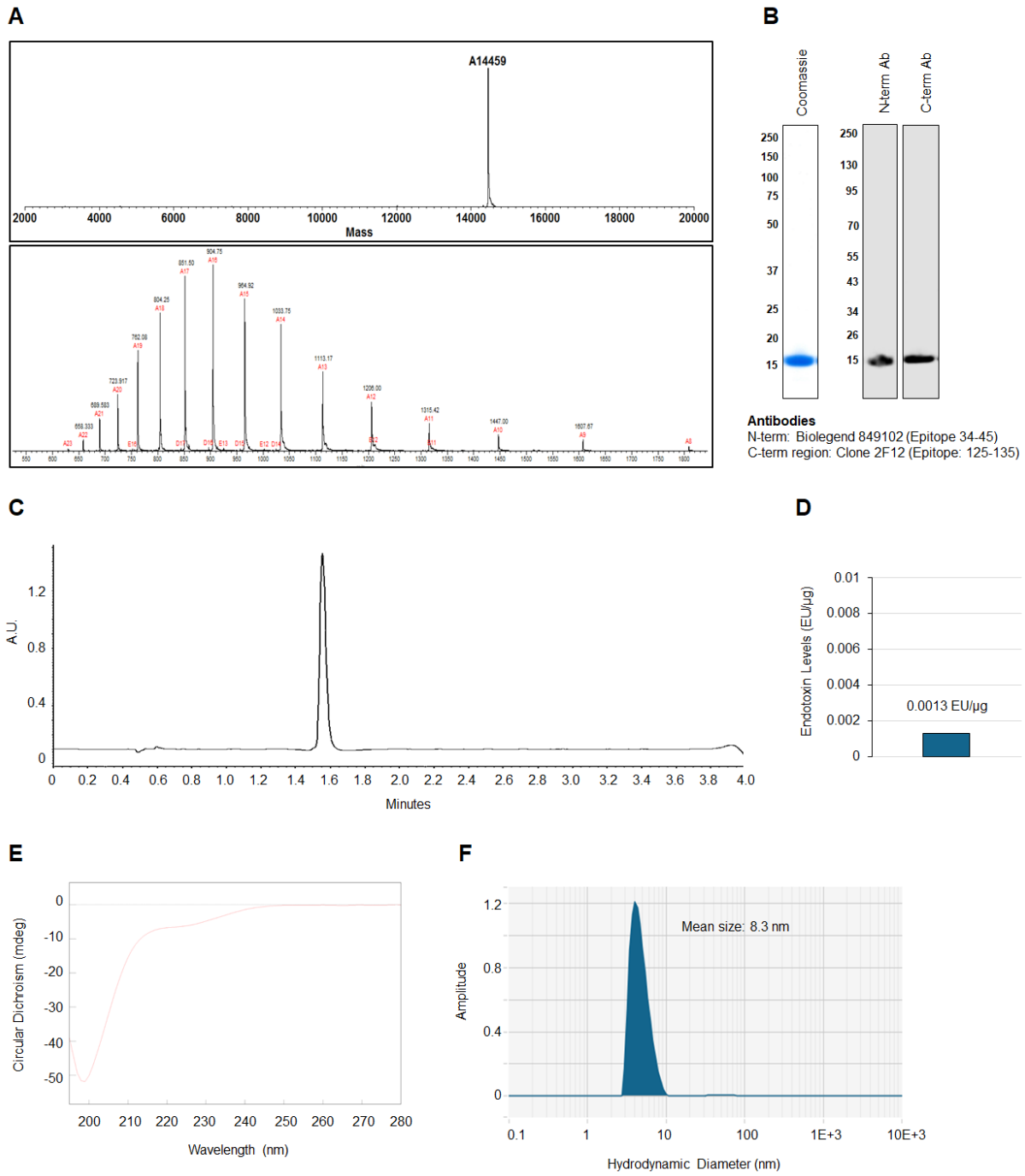

Figure 1. Characterization of α-Syn monomers. (A) Mass spectrometry (ESI) analysis confirms the integrity of the α-Syn protein and shows a mass of ~14460 Da. **(B)** Coomassie staining and western blotting shows that α-Syn migrates as a single band at ~14 kDa. Reactivity of α-Syn was assessed with antibodies targeting the N-terminus (Biolegend 849102; Epitope: 34-45) and C-terminus (clone 2F12, Epitope: 125-135) of α-Syn. **(C)** Ultra-performance liquid chromatography (UPLC) analysis shows a single peak at ~1.5 min, establishing the purity of the protein. **(D)** Assessment of endotoxin levels establishes ultra-low levels of endotoxin units (EU) per µg of α-Syn protein, at 0.0013 EU/µg. **(E)** Circular dichroism (CD) analysis shows a spectrum with a minimum at ~195 nm, establishing disordered conformational ensemble of α-Syn monomers. **(F)** Dynamic light scattering analysis of α-Syn monomers shows a homogenous population in terms of size distribution, with average particle size of 8.3 nm.

We are committed to developing tools and solutions that will not only address current technical challenges and limitations, but that will also improve the quality, reproducibility, and integrity of research in the field of neurodegenerative diseases.

We are committed to delivering reagents and services with the highest standards. Every step in our workflow is subjected to strict quality control procedures and all the relevant reports, where applicable, are provided to our clients.

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