

PRODUCT DATA SHEET

Alpha Synuclein A53T Mutant Monomers

SKU: TDA-1106m-100

Product Details

Product Name: Alpha Synuclein A53T Mutant Monomers

Catalog Number: TDA-1106m-100

Organism: *Homo Sapiens*, Human

Nature: Recombinant

Package Size: 100ug in 1 mg/ml

Conjugates: No tag

Protein Length/Size: Full Length

Expression System: E. coli

Amino Acid Sequence: MDVFMKGLSK AKEGVVAAAE KTKQGVAEAA GKTKEGVLYV
GSKTKEGVVH GVTTVAEKT EQVTNVGGAV VTGVTAVAQK TVEGAGSIAA ATGFVKKDQL
GKNEEGAPQE GILEDMPVDP DNEAYEMPSE EGYQDYEPEA

Purity: >95% by SDS-PAGE

Storage Conditions & Shipment

Storage Buffer: PBS pH 7.4

Product Format/Shipped: Cryopreserved / Dry ice

Storage Temperature: -80°C for long term storage; avoid freeze/thaw cycle

Safety Precaution

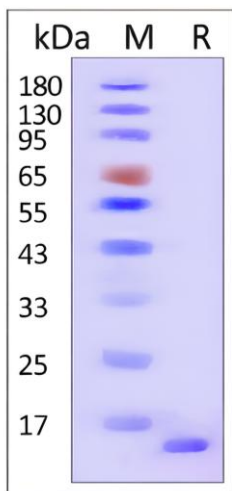
PLEASE READ BEFORE HANDLING ANY FROZEN VIALS. Please wear appropriate Personal Protection Equipment (lab coat, thermal gloves, safety goggles and a face shield) when handling

Description

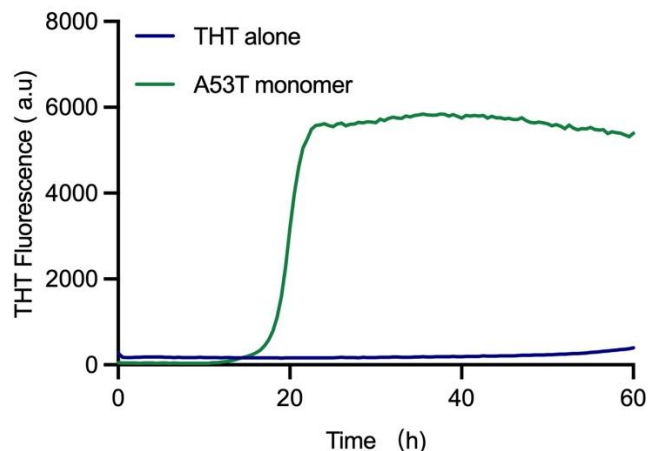
Alpha-synuclein (SNCA) is predominantly expressed in the brain and is enriched at presynaptic nerve terminals. It is also localized to mitochondria in several brain regions, including the olfactory bulb, hippocampus, striatum, and thalamus. Alpha-synuclein interacts with tubulin and has been proposed to function as a microtubule-associated protein, contributing to synaptic and cytoskeletal regulation.

Pathologically, fibrillar alpha-synuclein aggregates are a major component of Lewy bodies in Parkinson's disease and constitute a significant non-amyloid- β component of amyloid plaques in Alzheimer's disease. The accumulation of alpha-synuclein- and ubiquitin-containing inclusions in vulnerable neuronal populations is a defining feature of Parkinson's disease-associated neurodegeneration.

Product Data



Alpha-synuclein monomer analyzed by SDS-PAGE under reducing conditions. The gel was stained with Coomassie Brilliant Blue overnight. Protein purity was estimated to be >90% based on comparison with a pre-stained protein molecular weight marker.



Thioflavin T (ThT) aggregation kinetics of α -synuclein A53T monomer.

Time-dependent ThT fluorescence of recombinant α -synuclein A53T monomer (green) showing a sigmoidal aggregation profile characterized by a defined lag phase followed by rapid fibril growth and a stable fluorescence plateau, consistent with the formation of β -sheet-rich amyloid fibrils. ThT alone (blue) served as a negative control and remained at baseline fluorescence throughout the assay. Fluorescence intensity is shown in arbitrary units (a.u.).

Applications

SDS-PAGE, WB, In vivo assay, In vitro assay

Disclaimers

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.