

PRODUCT DATA SHEET

Alpha Synuclein H50Q Mutation Monomers

SKU: TDA-1107m-100

Product Details

Product Name: Alpha Synuclein H50Q Mutation Monomers

Catalog Number: TDA-1107m-100

Organism: *Homo Sapiens*, Human

Nature: Recombinant

Package Size: 100ug in 1mg/ml concentration

Conjugates: No tag

Protein Length/Size: Full Length

Expression System: E. coli

Amino Acid Sequence: MDVFMKGLSK AKEGVVAAAE KTKQGVAAEA GKTKEGVLYV
GSKTKEGVVQ GVATVAEKT 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

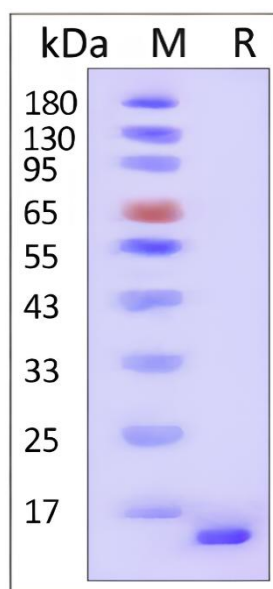


Figure 1, Alpha-synuclein monomer analyzed by SDS-PAGE under reducing conditions. The gel was stained with Coomassie Brilliant Blue overnight. Protein purity was estimated to be >90% based on comparison with a pre-stained protein molecular weight marker.

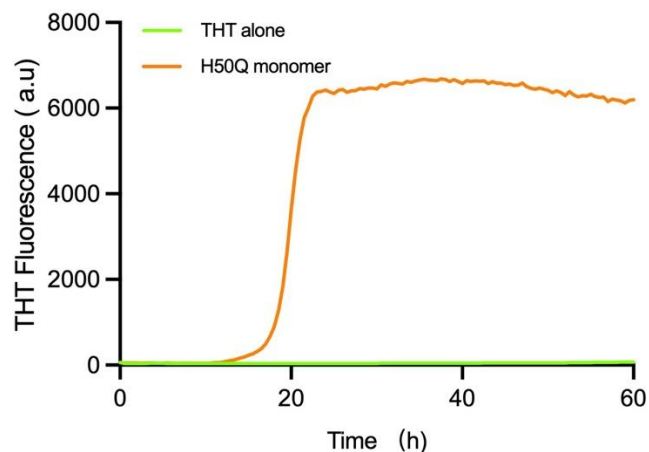


Figure 2, Thioflavin T (ThT) aggregation kinetics of α -synuclein H50Q monomer.

Time-dependent ThT fluorescence of recombinant α -synuclein H50Q monomer (orange) exhibiting a sigmoidal aggregation profile with a defined lag phase followed by rapid fibril growth and a high fluorescence plateau, consistent with the formation of β -sheet-rich amyloid fibrils. ThT alone (green) was included 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.