Human alpha Synuclein protein (Pre-Formed Fibrils)

Cat. No. GTX17667-pro

Applications	Functional Assay
Species	Human

Package
200 µg, 100 µg

PRODUCT

Summary Human Recombinant Alpha Synuclein Preformed Fibrils (Type 2)

Applications

Application Note

Does not induce Lewy body inclusion formation in Sprague-Dawley rat primary hippocampal neurons. Thioflavin T emission curve shows only a small increase in fluorescence (indicative of alpha synuclein aggregation) when Type 2 alpha synuclein PFFs (GTX17667-pro) are combined with alpha synuclein monomers (GTX17668-pro or GTX17666-pro). Certain biological activities in other neuronal cells cannot be ruled out. Researchers should test compatibility prior to use.
*For best results, sonicate immediately prior to use.

Properties

Form	Liquid
Buffer	PBS
Preservative	No preservatives
Storage	Store as concentrated solution. Aliquot and store at -80ºC. Avoid freeze-thaw cycles.
Concentration	Batch dependent (Please refer to the vial label for the specific concentration.)
Region/Sequence	Full-length without tagged; MDVFMKGLSK AKEGVVAAAE KTKQGVAEAA GKTKEGVLYV GSKTKEGVVH GVATVAEKTK EQVTNVGGAV VTGVTAVAQK TVEGAGSIAA ATGFVKKDQL GKNEEGAPQE GILEDMPVDP DNEAYEMPSE EGYQDYEPEA
Expression System	E. coli
Purification	Purified by ion-exchange chromatography
Purity	92 % by SDS-PAGE
Endotoxin	< 1 EU/µg (by LAL assay)
Conjugation	Unconjugated
Note	For laboratory research use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption. Purchasers shall not, and agree not to enable third parties to, analyze, copy, reverse engineer or otherwise attempt to determine the structure or sequence of the product.

For full product information, images and publications, please visit our website.

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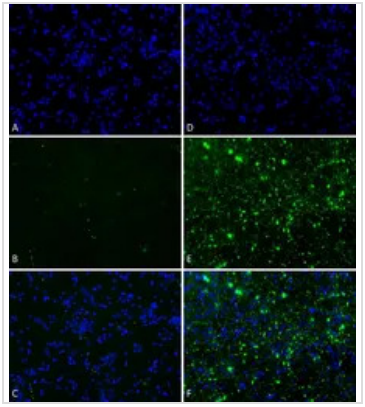
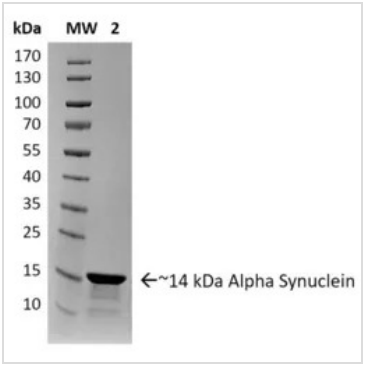
DATA IMAGES



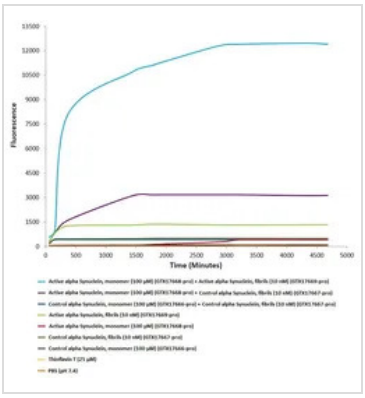
GTX17667-pro Functional Assay Image

Primary rat hippocampal neurons show lewy body inclusion formation when treated with active Alpha Synuclein Preformed Fibrils (GTX17669-pro) at 4 µg/ml (D-F), but not when treated with control Alpha Synuclein Preformed Fibrils (GTX17667-pro) at 4 µg/ml (A-C).
Tissue: Primary hippocampal neurons. Species: Sprague-Dawley rat. Fixation: 4% formaldehyde made from PFA. Primary Antibody: Mouse anti-pSer129 Antibody at 1:1000 24 hours at 4ºC. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:700 for 1 hours at RT. Counterstain: Hoechst (blue) nuclear stain at 1:4000 for 1 hour at RT. Localization: Lewy body incluscions. Magnification: 20x.



GTX17667-pro Image

SDS-PAGE of ~14 kDa Human alpha Synuclein protein (fibrils) (GTX17667-pro).
Lane 1: Molecular Weight Ladder (MW). Lane 2: Human alpha Synuclein protein (fibrils) (GTX17667-pro).



GTX17667-pro Image

Active alpha synuclein preformed fibrils (GTX17669-pro) seed the formation of new alpha synuclein fibrils from the pool of alpha synuclein monomers (GTX17668-pro). Thioflavin T is a fluorescent dye that binds to beta sheet-rich structures, such as those in alpha synuclein fibrils. Upon binding, the emission spectrum of the dye experiences a red-shift and increased fluorescence intensity. Thioflavin T emission curves show increased fluorescence (correlated to alpha synuclein protein aggregation) over time when 10 nM of active alpha synuclein preformed fibrils (GTX17669-pro) is combined with 100 µM of alpha synuclein monomer (GTX17668-pro), as compared to when 10 nM of control alpha synuclein preformed fibrils (GTX17667-pro) is combined with 100 µM of alpha synuclein monomer (GTX17668-pro) or 100 µM of alpha Synuclein monomer (GTX17666-pro). Thioflavin T ex = 450 nm, em = 485 nm.

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