

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 -80°C. Avoid freeze-thaw cycles.**Concentration** Batch dependent (Please refer to the vial label for the specific concentration.)**Region/Sequence** Full-length without tagged; MDVFMKGLSK AKEGVVAAA KTKQGVAEAA GKTKEGVLYV GSKTKEGVWH GVATVAEKT
EQVTNVGGAV VTGVTAVAQK TVEGAGSIAA ATGFVKKDQL GKNEEGAPQE GILEDMPVDP DNEAYEMPSE EGYQDYEP**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

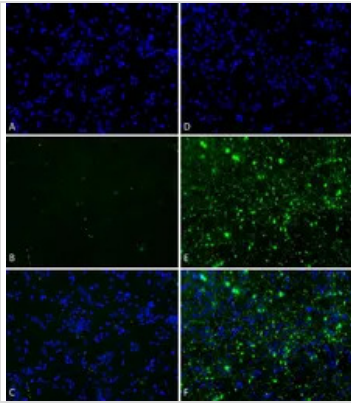
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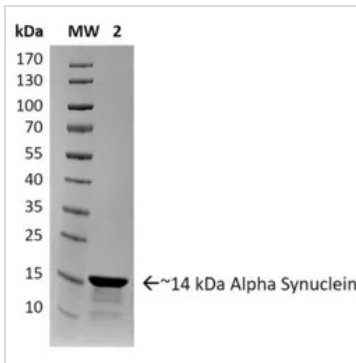
DATA IMAGES



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).

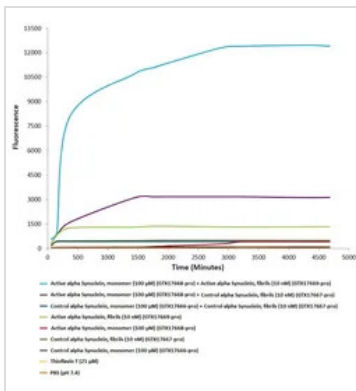
Tissue: Primary hippocampal neurons. Species: Sprague-Dawley rat. Fixation: 4% formaldehyde made from PFA. Primary Antibody: Mouse anti-pSer129 Antibody at 1:1000 24 hours at 4°C. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:700 for 1 hours at RT. Counterstain: Hoechst (blue) nuclear stain at 1:4000 for 1 hour at RT. Localization: Lewy body inclusions. 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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