

# Recombinant Human Alpha-synuclein protein aggregate (Type 2) ab218817

[1 References](#) [画像数 4](#)

### 製品の詳細

製品名	Recombinant Human Alpha-synuclein protein aggregate (Type 2)
精製度	> 95 % SDS-PAGE. ab218817 is purified by ion-exchange and 0.2µm filtered.
エンドトキシン・レベル	< 1.000 Eu/µg
発現系	Escherichia coli
アクセッション番号	<b>P37840-1</b>
タンパク質長	Full length protein
Animal free	No
由来	Recombinant
生物種	Human
配列	MDVFMKGLSKAKEGVVAAAEEKTKQGVAEAAGKTKEGVLYVGS KTKEGVVH GVATVAEKTKEQVTNVGGAVVTGVTAVAQKTVEGAGSIAAAT GFVKKDQL GKNEEGAPQEGILEDMPVDPDNEAYEMPSEEGYQDYEPEA
予測される分子量	14 kDa
領域	1 to 140
製品の詳細	Recombinant Human Alpha-synuclein protein

### 特性

Our **Abpromise guarantee** covers the use of **ab218817** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	SDS-PAGE Functional Studies
製品の状態	Liquid
備考	ab218817 is a protein aggregate which can be used as a control in various assays. <a href="#">Learn more.</a>

## 前処理および保存

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### 保存方法および安定性

Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle.

pH: 7.50

Constituent: 95% PBS

0.2µm filtered solution

## 関連情報

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### 機能

May be involved in the regulation of dopamine release and transport. Induces fibrillization of microtubule-associated protein tau. Reduces neuronal responsiveness to various apoptotic stimuli, leading to a decreased caspase-3 activation.

### 組織特異性

Expressed principally in brain but is also expressed in low concentrations in all tissues examined except in liver. Concentrated in presynaptic nerve terminals.

### 関連疾患

Genetic alterations of SNCA resulting in aberrant polymerization into fibrils, are associated with several neurodegenerative diseases (synucleinopathies). SNCA fibrillar aggregates represent the major non A-beta component of Alzheimer disease amyloid plaque, and a major component of Lewy body inclusions. They are also found within Lewy body (LB)-like intraneuronal inclusions, glial inclusions and axonal spheroids in neurodegeneration with brain iron accumulation type 1. Parkinson disease 1  
Parkinson disease 4  
Dementia Lewy body

### 配列類似性

Belongs to the synuclein family.

### ドメイン

The 'non A-beta component of Alzheimer disease amyloid plaque' domain (NAC domain) is involved in fibrils formation. The middle hydrophobic region forms the core of the filaments. The C-terminus may regulate aggregation and determine the diameter of the filaments.

### 翻訳後修飾

Phosphorylated, predominantly on serine residues. Phosphorylation by CK1 appears to occur on residues distinct from the residue phosphorylated by other kinases. Phosphorylation of Ser-129 is selective and extensive in synucleinopathy lesions. In vitro, phosphorylation at Ser-129 promoted insoluble fibril formation. Phosphorylated on Tyr-125 by a PTK2B-dependent pathway upon osmotic stress.

Hallmark lesions of neurodegenerative synucleinopathies contain alpha-synuclein that is modified by nitration of tyrosine residues and possibly by dityrosine cross-linking to generated stable oligomers.

Ubiquitinated. The predominant conjugate is the diubiquitinated form.

Acetylation at Met-1 seems to be important for proper folding and native oligomeric structure.

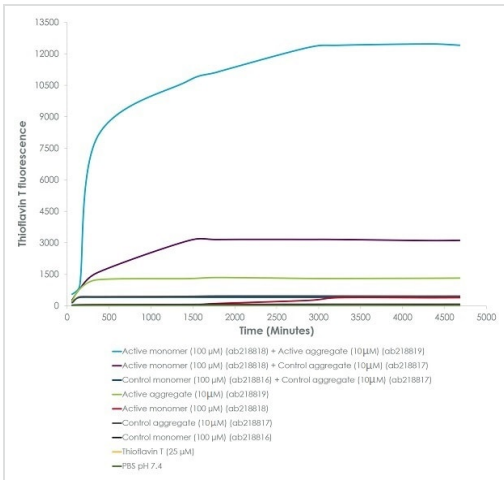
### 細胞内局在

Cytoplasm, cytosol. Membrane. Nucleus. Cell junction, synapse. Secreted. Membrane-bound in dopaminergic neurons.

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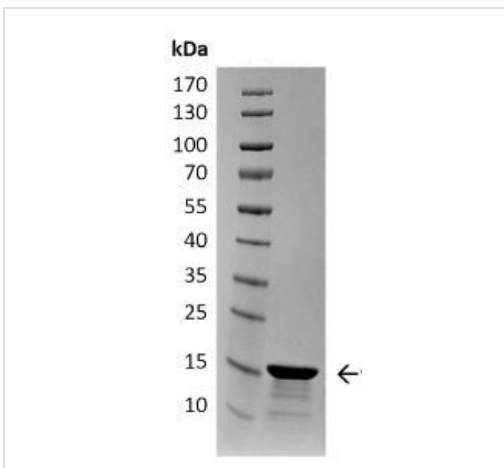
## 画像

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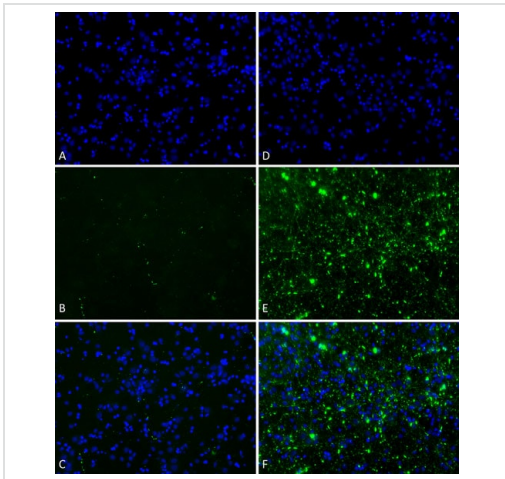
Functional Studies - Recombinant Human Alpha-synuclein protein aggregate (Type 2) (ab218817)

ThT emission curves show increased fluorescence (correlated to alpha-synuclein protein aggregation) over time when 10 μM of active alpha-synuclein aggregate (**ab218819**) is combined with 100 μM of active alpha-synuclein monomer (**ab218818**) (light blue), as compared to when 100 μM of active alpha-synuclein monomer is combined with 10 μM of control alpha-synuclein aggregate (purple line), or 100 μM of control alpha-synuclein monomer (**ab218816**) is combined with 10 μM of control alpha-synuclein aggregate (ab218817) (dark blue). ThT ex = 450 nm, em = 485 nm. [View protocol.](#)



SDS-PAGE - Recombinant Human Alpha-synuclein protein aggregate (Type 2) (ab218817)

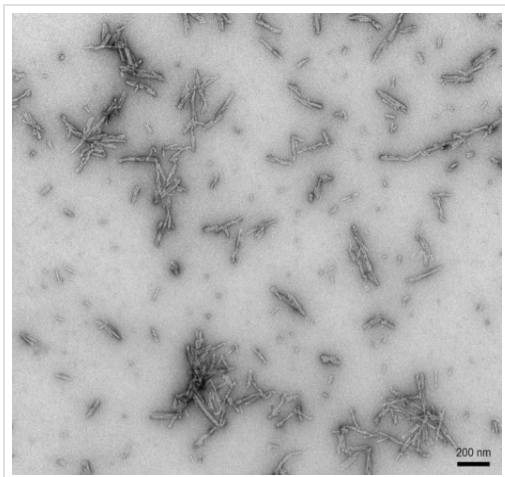
SDS-PAGE analysis of ab218817.



Immunohistochemical analysis of 4% formaldehyde fixed primary rat hippocampal neurons from Sprague-Dawley rat labeling lewy body inclusions formed when treated with active Alpha Synuclein Protein Aggregate at 4 µg/ml (D-F), but not when treated with ab218817 at 4 µg/ml (A-C).

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. Magnification: 20x.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Recombinant Human Alpha-synuclein protein aggregate (Type 2) (ab218817)



TEM of ab218817.

Functional Studies - Recombinant Human Alpha-synuclein protein aggregate (Type 2) (ab218817)

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