

Product datasheet

Recombinant Human Alpha-synuclein protein ab51189

[6 References](#) [2 Images](#)

Description

Product name	Recombinant Human Alpha-synuclein protein
Purity	> 95 % SDS-PAGE.
Endotoxin level	< 1.000 Eu/μg
Expression system	Escherichia coli
Accession	<u>P37840</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MDVFMKGLSKAKEGVVAAAETKQGVAEAAGKTKEGVL YVGSKTKEGVVH GVATVAEKTKEQVTNVGGAVVTGVTAVAQKTVEGAGSIA AATGFVKKDQL GKNEEGAPQEGILEDMPVDPDNEAYEMPSEEGYQDYEP EA
Predicted molecular weight	14 kDa
Amino acids	1 to 140

Specifications

Our **Abpromise guarantee** covers the use of **ab51189** in the following tested applications.

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

Applications	Western blot SDS-PAGE
Form	Liquid

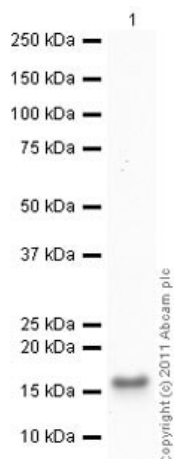
Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. pH: 7.50
------------------------------	---

General Info

Function	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.
Tissue specificity	Expressed principally in brain but is also expressed in low concentrations in all tissues examined except in liver. Concentrated in presynaptic nerve terminals.
Involvement in disease	<p>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.</p> <p>Parkinson disease 1 Parkinson disease 4 Dementia Lewy body</p>
Sequence similarities	Belongs to the synuclein family.
Domain	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.
Post-translational modifications	<p>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.</p> <p>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.</p> <p>Ubiquitinated. The predominant conjugate is the diubiquitinated form.</p> <p>Acetylation at Met-1 seems to be important for proper folding and native oligomeric structure.</p>
Cellular localization	Cytoplasm, cytosol. Membrane. Nucleus. Cell junction, synapse. Secreted. Membrane-bound in dopaminergic neurons.

Images



Western blot - Recombinant Human Alpha-synuclein protein (ab51189)

Anti-Alpha-synuclein antibody [LB 509] ([ab27766](#)) at 1/1000 dilution + Recombinant Human Alpha-synuclein protein (ab51189) at 0.1 µg

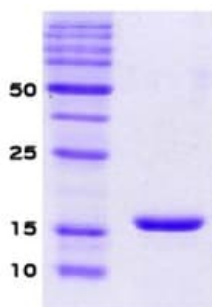
Secondary

Goat Anti-Mouse IgG H&L (HRP) preadsorbed ([ab97040](#)) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Exposure time: 8 minutes



SDS-PAGE - Recombinant Human Alpha-synuclein protein (ab51189)

ab51189 (3 µg) in 14% SDS-PAGE.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors