

DESCRIPTION

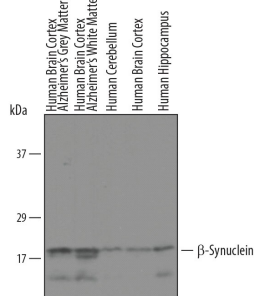
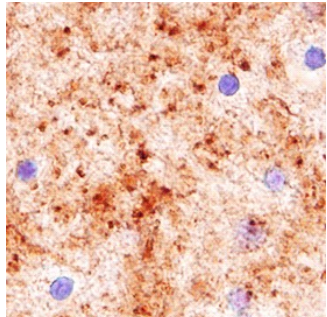
Species Reactivity	Human
Specificity	Detects human β -Synuclein in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human (rh) α -Synuclein and less than 1% cross-reactivity with rhy-Synuclein is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	E. coli-derived recombinant human β -Synuclein Gly47-Glu120 Accession # Q16143
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μ m filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 μ g/mL	See Below
Immunohistochemistry	5-15 μ g/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human β-Synuclein by Western Blot. Western blot shows lysates of human brain cortex, Alzheimer grey matter and white matter, and human cerebellum, brain cortex, and hippocampus tissue. PVDF membrane was probed with 1 μg/mL of Human β-Synuclein Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5528) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for β-Synuclein at approximately 19 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p>	<p>Immunohistochemistry</p>  <p>β-Synuclein in Human Brain. β-Synuclein was detected in immersion fixed paraffin-embedded sections of human brain (globus pallidus) using Sheep Anti-Human β-Synuclein Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5528) at 1.7 μg/mL overnight at 4 $^{\circ}$C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific labeling was localized to the presynaptic terminals. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 $^{\circ}$ C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 $^{\circ}$C as supplied. ● 1 month, 2 to 8 $^{\circ}$C under sterile conditions after reconstitution. ● 6 months, -20 to -70 $^{\circ}$C under sterile conditions after reconstitution.

BACKGROUND

β -Synuclein is a 19 kDa, 134 amino acid (aa) cytoplasmic phosphoprotein that is a member of a family of small, highly conserved proteins, including synucleins alpha, beta, and gamma (synoretin), localized predominantly in presynaptic nerve terminals in the brain. β -Synuclein associates with α -Synuclein, preventing it from aggregating. Abnormal α -Synuclein aggregates form filamentous inclusions (Lewy bodies) in neurodegenerative diseases including Parkinson's disease. Within the region used as an immunogen, human SNCB shares 99% aa identity with mouse and rat β -Synuclein.