

## DESCRIPTION

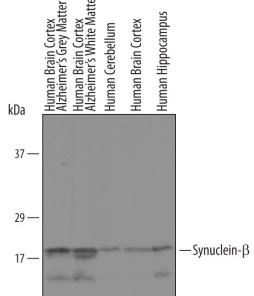
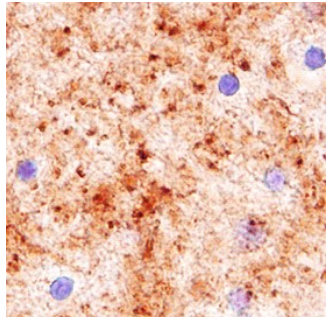
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Synuclein- $\beta$ in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human (rh) Synuclein- $\alpha$ and less than 1% cross-reactivity with rhSynuclein- $\gamma$ is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Synuclein- $\beta$ Gly47-Glu120 Accession # Q16143
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ 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
<b>Western Blot</b>	1 $\mu$ g/mL	See Below
<b>Immunohistochemistry</b>	5-15 $\mu$ g/mL	See Below

## DATA

<p><b>Western Blot</b></p>  <p><b>Detection of Human Synuclein-<math>\beta</math> by Western Blot.</b> 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 <math>\mu</math>g/mL of Human Synuclein-<math>\beta</math> Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5528) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Synuclein-<math>\beta</math> at approximately 19 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>Synuclein-<math>\beta</math> in Human Brain.</b> Synuclein-<math>\beta</math> was detected in immersion fixed paraffin-embedded sections of human brain (globus pallidus) using Sheep Anti-Human Synuclein-<math>\beta</math> Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5528) at 1.7 <math>\mu</math>g/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific labeling was localized to the presynaptic terminals. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>
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## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Synuclein- $\beta$  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. Synuclein- $\beta$  associates with Synuclein- $\alpha$ , preventing it from aggregating. Abnormal Synuclein- $\alpha$  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 Synuclein- $\beta$ .