

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human $\gamma$ -Synuclein in direct ELISAs and Western blots.
<b>Source</b>	Recombinant Monoclonal Mouse IgG <sub>1</sub> Clone # 514304R
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human $\gamma$ -Synuclein Asn47-Glu120 Accession # Q6FHG5
<b>Formulation</b>	Supplied as a solution in PBS. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m filtered solution in PBS.

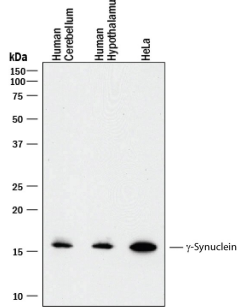
**APPLICATIONS**

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.5 $\mu$ g/mL	See Below
<b>Immunocytochemistry</b>	1-25 $\mu$ g/mL	See Below
<b>Immunohistochemistry</b>	1-25 $\mu$ g/mL	See Below

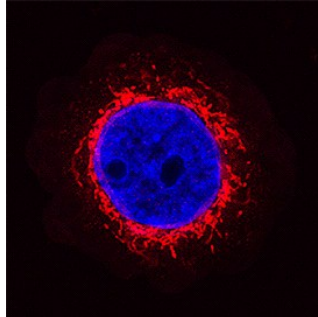
**DATA**

**Western Blot**



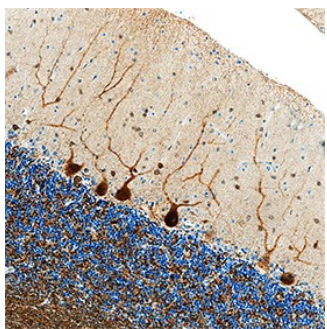
**Detection of Human  $\gamma$ -Synuclein by Western Blot.** Western blot shows lysates of human brain (cerebellum) tissue, human brain (hypothalamus) tissue, and HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 0.5  $\mu$ g/mL of Recombinant Mouse Anti-Human  $\gamma$ -Synuclein Monoclonal Antibody (Catalog # MAB5745R) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for  $\gamma$ -Synuclein at approximately 16 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Immunocytochemistry**



**$\gamma$ -Synuclein in MBA-MB-468 Human Cell Line.**  $\gamma$ -Synuclein was detected in immersion fixed MBA-MB-468 human breast cancer cell line using Recombinant Mouse Anti-Human  $\gamma$ -Synuclein Monoclonal Antibody (Catalog # MAB5745R) at 1.7  $\mu$ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

**Immunohistochemistry**



**$\gamma$ -Synuclein in Human Brain.**  $\gamma$ -Synuclein was detected in immersion fixed paraffin-embedded sections of human brain (cerebellum) using Recombinant Mouse Anti-Human  $\gamma$ -Synuclein Monoclonal Antibody (Catalog # MAB5745R) at 1  $\mu$ g/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to Purkinje neurons. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

**PREPARATION AND STORAGE**

<b>Shipping</b>	The product is shipped with polar packs. 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>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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 opening.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after opening.</li> </ul>

#### BACKGROUND

$\gamma$ -Synuclein (SNCG), also called persyn or synoretin, is a 17 kDa, 127 amino acid (aa) cytoplasmic phosphoprotein. It is a member of a family of small, highly conserved synuclein proteins localized predominantly in presynaptic nerve terminals in the brain. SNCG and other synucleins are implicated in neurodegenerative diseases including Parkinson's disease. SNCG expression is elevated in many cancers and is implicated in tumor progression, invasion and proliferation. Within the region used as an immunogen, human SNCG shares 82% and 78% aa identity with mouse and rat SNCG, respectively.