Anti Phosphorylated α-Synuclein

"Alpha-Synuclein is a neuronal protein particularly abundant in forebrain structures in rodents and humans. Alpha-Synuclein is a major protein component of Lewy bodies (LB), the histopathological hallmark of Parkinson’s disease (PD) and dementia with LBs.

Two mutations in the α-synuclein gene have been found to cause familial forms of PD characterized by extensive loss of nigral dopaminergic neurons and loss of dopamine in the striatum.'[2, 3]

"Alpha-synuclein may cause neurodegeneration by inhibiting autophagy.

Autophagy serves to clear a variety of toxic waste from cells, including misfolded proteins and defective mitochondria. These two types of cellular trash accumulate in neurons from Parkinson’s patients, suggesting that autophagy could be impaired in these cells.

It has been found that excess alpha-synuclein inhibits autophagy by blocking formation of the autophagosome—the double-membraned vesicle that engulfs cytoplasmic garbage and delivers it to lysosomes for destruction. "[1]

Anti phosphorylated α-synuclein is applicable to biological and neuropathological studies on the locations of LB-related pathology.

We have launched an antibody which specifically reacts with human α-synuclein with a phosphorylated Ser129 residue and does not react to human α-synuclein. The monoclonal Anti Phosphorylated α-Synuclein antibody is produced by hybridoma Clone pSyn # 64, established by mouse myeloma cell PAI and spleen cells of BALB/c mice, immunized with polypeptide (residues 124-134) including phosphorylated Ser129 of human α-Synuclein.

Features

1. Applicable to Western blot and Immunohistochemistry
2. Highly specific antibody for α-Synuclein phosphorylated at Ser 129

Product Information

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<thead>
<tr>
<th>Description</th>
<th>Wako Cat. No.</th>
<th>Package Size</th>
<th>Grade</th>
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<tbody>
<tr>
<td>Anti Phosphorylated α-Synuclein, Monoclonal Antibody (pSyn#64)</td>
<td>015-25191</td>
<td>50 µL</td>
<td>for Immunochemistry</td>
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Product Specification

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<th>Subclass</th>
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<td>pSyn#64</td>
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Specificity

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<tr>
<td>human</td>
<td>α-Synuclein including phosphorylated Ser 129, No cross-reaction with human α-Synuclein</td>
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</tbody>
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Working Dilution

1:1000 ~ 1:10000 (Western blot, Immunohistochemistry)

Applications

Fixatives that have been used include paraformaldehyde, Bouin’s Zamboni’s acrolein, and the PLP fixative of Nakane. Zamboni’s or 4% paraformaldehyde seem optimal.

References