Technical Data Sheet

Purified Mouse Anti-α-Synuclein

Product Information
Material Number: 610787
Size: 150 µg
Concentration: 250 µg/ml
Clone: 42/α-Synuclein
Immunogen: Rat Synuclein-1 aa. 15-123
Isotype: Mouse IgG1
Reactivity: QC Testing: Rat
Tested in Development: Human, Mouse
Target MW: 19 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description
Synuclein cDNA was isolated from Torpedo californica and found to encode a 143 amino acid neuron-specific protein. In addition, a rat brain cDNA library yielded several clones that encode different proteins with homology to Torpedo Synuclein. A 140 amino acid protein in rat is referred to as Synuclein-1. In situ hybridization shows synuclein mRNAs in discrete areas of rat brain, notably the hippocampus. In humans, two synuclein proteins of 140 and 134 amino acids were sequenced that exhibit a high degree of homology with each other (61% identity) and with previously described Synuclein proteins. The 140 amino acid protein (α-Synuclein) is the human homologue of rat Synuclein-1 and is identical to the non-amyloid-β component precursor (NACP), a presynaptic protein involved in amyloidogenesis in Alzheimer's disease (AD). The 134 amino acid protein (β-Synuclein) is the human homologue of bovine phosphoeneuroprotein. These proteins are expressed in brain, primarily in presynaptic nerve terminals. Although the exact function of the Synucleins has not been determined, they have been linked to the prominent neurodegenerative disorders AD and Parkinson's disease.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

Preparation and Storage
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C.
**Application Notes**

### Application

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<th>Application</th>
<th>Tested During Development</th>
<th>Routinely Tested</th>
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<tbody>
<tr>
<td>Western blot</td>
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<td>Immunofluorescence</td>
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<td>Immunohistochemistry</td>
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### Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>611463</td>
<td>Rat Cerebrum Lysate</td>
<td>500 µg</td>
<td>(none)</td>
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<tr>
<td>554001</td>
<td>FITC Goat Anti-Mouse Igs (Multiple Adsorption)</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Igs</td>
<td>1.0 ml</td>
<td>(none)</td>
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### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

### References