Toxic Conformer of Amyloidβ Specific Antibody (Clone: 11A1)

- Research Use Only -

<table>
<thead>
<tr>
<th>Product No.</th>
<th>Product Name</th>
<th>Application</th>
<th>Specificity</th>
<th>Volume</th>
<th>Sample Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>10379</td>
<td>Anti-Human Amyloidβ E22P (11A1) Mouse IgG MoAb</td>
<td>IHC, WB, IP</td>
<td>Reacts with native human Amyloidβ 1-40, 1-42</td>
<td>50μG</td>
<td>5μG</td>
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</tbody>
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Alzheimer’s disease (AD) is characterized by the presence of extracellular plaques and intracellular neurofibrillary tangles (NFTs) in the brain. Aggregation of the 42-mer amyloid β-protein (Aβ42) plays a critical role in the pathogenesis of AD. Shirasawa and Irie et al. have proposed a toxic conformer with a turn at positions 22 and 23, as well as a nontoxic conformer with a turn at positions 25 and 26, in Aβ42 aggregates from systematic proline scanning and solid-state NMR studies. This monoclonal antibody named 11A1 was developed for toxic Aβ42, using E22P-Aβ10-35, a minimum moiety for neurotoxicity containing the turn at positions 22 and 23, for the generation. Immunohistochemical studies showed that not only extracellular but intracellular amyloid was stained in human AD brains, which suggest that 11A1 could detect toxic oligomers of Aβ with the turn at positions 22 and 23.

IHC by Clone 11A1

This antibody can detect not only senile plaque (blue arrow in figure) but also intracellular Aβ (red arrow in figure) (Ref.4)

This antibody can detect Aβ oligomer in AD brain extract.

References

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