HFIP-treated amyloid β-peptides 1-40 and 1-42 have been added to our catalog.

Amyloid peptides are prone to aggregation. Treating amyloid β-peptides with 1,1,1,3,3,3-hexafluoroisopropanol (HFIP) is the standard method for disrupting amyloid fibrils and generating the Aβ monomers. Removal of this volatile solvent leaves films of disaggregated peptides which can be reconstituted in DMSO, double-distilled water, or buffers for further studies (please see reverse side for a compilation of literature references).

Working with HFIP-treated Aβ40 and Aβ42 has the advantage of getting more reproducible results whereas the commercially available untreated equivalents of Aβ40 and Aβ42 contain varying amounts and types of oligomeric structures such as fibrils.

**AMYLOID β-PEPTIDES**

<table>
<thead>
<tr>
<th>HFIP-Treated Peptides</th>
<th>Catalog No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amyloid β-Protein (1-42)</strong></td>
<td></td>
</tr>
<tr>
<td>0.1 mg/vial</td>
<td>H-7442.0100</td>
</tr>
<tr>
<td>0.5 mg/vial</td>
<td>H-7442.0500</td>
</tr>
<tr>
<td>1 mg/vial</td>
<td>H-7442.1000</td>
</tr>
<tr>
<td><strong>Amyloid β-Protein (1-40)</strong></td>
<td></td>
</tr>
<tr>
<td>0.1 mg/vial</td>
<td>H-7438.0100</td>
</tr>
<tr>
<td>0.5 mg/vial</td>
<td>H-7438.0500</td>
</tr>
<tr>
<td>1 mg/vial</td>
<td>H-7438.1000</td>
</tr>
</tbody>
</table>

**TEM Studies**

Our HFIP-treated amyloid β-peptide (1-42) H-7442 and amyloid β-peptide (1-40) H-7438 were obtained by dissolving the corresponding Aβ peptides H-1368 and H-1194 in HFIP, aliquoting, and removing the solvent as described in the literature. The morphology of the resulting peptides was studied by transmission electron microscopy (TEM).

Samples of both peptides were reconstituted in ultrapure water at a concentration of 10 mg/mL and incubated at 37°C for 20h. Then, 20 μL aliquots of each sample were applied to Formvar-coated copper grids for 5 min for adsorption, followed by a washing step by floating on a drop of water. The peptide-treated grids were stained with 2% aqueous uranyl acetate.

TEM studies of amyloid fibril formation have been done by Solvias AG using a Zeiss EM 910 at 100kV. Images of the growing β-amyloid fibrils were taken by a digital camera.

![Fig. 1: TEM image of HFIP-treated Aβ 1-42.](image)

The magenta arrow points to the nucleation centers where aggregation starts. The yellow arrow indicates the fibrils which are formed as long thin helical structures with regular twists.

![Fig. 2: TEM image of HFIP-treated Aβ 1-40.](image)

Meaning of arrows as indicated for Fig. 1.
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