

# Product Information

## Control peptide amyloid- $\beta$ (40-1) human

For Research Purposes only. Not for use in Humans



<b>Product</b>	BAP-022
<b>Sequence</b>	VVGGVMLGIIAGKNSGVDEAFFVLKQHHVEYGSDHRFEAD  Val-Val-Gly-Gly-Val-Met-Leu-Gly-Ile-Ile-Ala-Gly-Lys-Asn-Ser-Gly-Val-Asp-Glu-Ala-Phe-Phe-Val-Leu-Lys-Gln-His-His-Val-Glu-Tyr-Gly-Ser-Asp-His-Arg-Phe-Glu-Ala-Asp
<b>Synonyms</b>	Control peptide beta-amyloid (40-1)
<b>CAS</b>	144409-99-4
<b>MW / Formula</b>	4329.90 / C <sub>194</sub> H <sub>295</sub> N <sub>53</sub> O <sub>58</sub> S
<b>Counter ion</b>	TFA
<b>Description</b>	<p>Characteristic of Alzheimer disease is the accumulation of amyloid plaques in the brain. The major components of these plaques are 39-42 residue-long amyloid-<math>\beta</math>-peptides, which form insoluble fibrils via self-assembly.</p> <p>The amyloid-<math>\beta</math>-peptides are fragments of the broadly distributed, membrane-bound amyloid precursor protein APP, encoded on chromosome 21. They are formed from the proteolytic cleavage of APP by <math>\beta</math>- and <math>\gamma</math>-secretases. Cleavage occurs preferably after residue 40 or after residue 42. The amyloid-<math>\beta</math> (1-40) represents the most abundant isoform in the brain, while the amyloid-<math>\beta</math> (1-42) shows a significant increase with certain forms of AD.</p> <p>The amyloid-<math>\beta</math> (1-40) is quite conserved. The human amyloid-<math>\beta</math> (1-40) differs from the rodent amyloid-<math>\beta</math> (1-40) (BAP-014) at only three sequence positions (Arg-5→Gly; Tyr-10→Phe and His-13→Arg).</p> <p>The "Control peptide amyloid-<math>\beta</math> (40-1)" represents the reverse amino acid sequence and an inactive control for amyloid-<math>\beta</math> (1-40) (BAP-012).</p>
<b>Packaging Reconstitution Storage</b>	<p>The peptide is provided as a lyophilised, colourless powder without any additives. It can be shipped at ambient temperature and should be stored at -20°C.</p> <p>BAP-022 can be reconstituted in H<sub>2</sub>O (1 mg/ml) or DMSO. Through the use of a vortex mixer, homogeniser or sonicator, a homogenous solution can be prepared. If you use an ultrasonic bath, take care of the vial labels.</p> <p>After reconstitution, the solution should be aliquoted and stored at or below -20°C. Repeated thawing and freezing should be avoided.</p>
<b>Handling</b>	<p>Caution, not fully tested. Good laboratory technique should be employed in the safe handling of any peptide product. If you are not fully trained or are unaware of the hazards involved, do not use this compound!</p> <p>Caution: Do not take internally! Avoid contact by all modes of exposure. Wear appropriate laboratory attire including a lab coat, gloves, mask and safety glasses. Do not mouth pipette, inhale, ingest or allow coming into contact with open wounds. Wash thoroughly any area of the body which comes into contact with the product. Avoid accidental autoinoculation by exercising extreme care when handling in conjunction with any injection device.</p> <p>This product is intended for research purposes by qualified personnel only. It is not intended for use in humans or as a diagnostic agent. EMC microcollections GmbH is not liable for any damages resulting from misuse or handling of this product.</p>
<b>References</b>	<p>M. Ahmed, J. Davis, D. Aucoin, T. Sato, S. Ahuja, S. Aimoto, J. I. Elliott, W. E. Van Nostrand, S. O. Smith (2010) Nat. Struct. Mol. Biol. 17, 561-567.</p> <p>T. Hartmann, S. C. Bieger, B. Brühl, P. J. Tienari, N. Ida, D. Allsop, G. W. Roberts, C. L. Masters, C. G. Dotti, K. Unsicker, K. Beyreuther (1997) Nat. Med. 3, 1016-1020.</p>