

## A $\beta$ (1-40) peptide

Alzheimer's amyloid- $\beta$  peptide, residues 1-40, wildtype  
human, recombinant, *E. coli*

Cat. No.	Amount
PR-180	1 mg

For *in vitro* use only  
Quality guaranteed for 12 months  
Store at -20°C under N<sub>2</sub>

### Avoid freeze / thaw cycles

### Form

Lyophilized.

### Molecular weight

4.3 kDa.

### Purity

> 96% by analytical reversed phase HPLC.

### Description

Alzheimer's disease is associated with the cerebral deposition of amyloid fibrils as plaques. These fibrils are formed from A $\beta$  peptide, a fragment of the amyloid precursor protein (Aguzzi et al.). A $\beta$  peptide can occur in different isoforms that differ in length. A $\beta$ (1-40) peptide is the most abundant A $\beta$  isoform inside the cerebral cortex of Alzheimer's patients (Mori et al.). A $\beta$ &#61538;(1-40) peptide can form oligomers, aggregates and fibrils *in vitro* (Kayed et al.).

### Selected References:

Mori et al. (1992) Mass spectrometry of purified amyloid protein in Alzheimer's disease. *J. Biol. Chem.* **267**:17082.  
Kayed et al. (2002) Common Structure of Soluble Amyloid Oligomers Implies Common Mechanism of Pathogenesis. *Science* **300**:486.  
Aguzzi et al. (2003) Games Played by Rogue Proteins in Prion Disorders and Alzheimer's disease. *Science* **302**:814.  
Hortschansky et al. (2005) The aggregation kinetics of Alzheimer's  $\beta$ -amyloid peptide is controlled by stochastic nucleation. *Protein Sci.* **14**:1753.