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Product Information

PRESENILIN-1 N-TERMINAL PEPTIDE

Product Number **P 2490**

Storage Temperature -20 °C

Product Description

Presenilin-1 N-terminal peptide is a purified, lyophilized synthetic peptide with a sequence corresponding to amino acid residues 14 to 33 of human Presenilin-1: Gln-Met-Ser-Glu-Asp-Asn-His-Leu-Ser-Asn-Thr-Val-Arg-Ser-Gln-Asn-Asp-Asn-Arg. Purity is approximately 60% determined by ion spray mass spectrometry. This peptide has been used to produce polyclonal antisera to Presenilin-1.

The Presenilin-1 gene was recently discovered on chromosome 14 and is responsible for an early onset form of autosomal dominant Alzheimer's disease.¹ The amino acid sequence is approximately 67% identical with that of the presenilin-2 protein. Both presenilin-1 and presenilin-2 are membrane proteins that have regions where mutations have been identified in family members with Alzheimer's disease. The gene sequence of presenilin-1 does not match any known human gene sequences other than that of presenilin-2. The function of these proteins remains speculative.

The effect of some amino-terminal fragments of presenilins on the production of amyloidic Aβ X-42 peptide and the accumulation of endogenous presenilin has been studied.²

Precautions and Disclaimer

Please consult the Material Safety Data Sheet for handling recommendations before working with this material.

Preparation Instructions

Reconstitute in sterile deionized water (Sigma Product No. W 4502). Gently mix at room temperature for 15 minutes.

Storage/Stability

After reconstitution, Presenilin-1 N-terminal peptide is stable for up to one month at 2-8 °C. For long term storage, freeze at -20 °C.

References

1. Saunders, A.M., Gene identification in Alzheimer's disease. *Pharmacogenomics*, **2**, 239-249 (2001).
2. Shirotani, K., et al., Effects of presenilin N-terminal fragments on production of amyloid beta peptide and accumulation of endogenous presenilins, *Neurosci. Lett.*, **26**, 37-40 (1999).

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