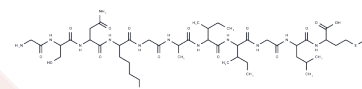


$\beta$ -Amyloid (25-35)

## Chemical Properties

CAS No. :	131602-53-4
Formula:	C45H81N13O14S
Molecular Weight:	1060.27
Storage:	Keep away from moisture Powder: -20°C for 3 years



Actual storage temperature shall be subject to the COA.

## Biological Description

Description	$\beta$ -Amyloid (25-35) is a fragment of the Alzheimer's amyloid beta peptide $A\beta(25-35)$ , exhibiting neurotoxic effects and commonly used to establish both cellular and animal models of Alzheimer's disease.
Targets(IC50)	Beta Amyloid
In vitro	The amino acid sequence of $\beta$ -Amyloid (25-35) is NH <sub>2</sub> -Gly-Ser-Asn-Lys-Gly-Ala-Ile-Ile-Gly-Leu-Met-COOH, where the first Gly represents the amino acid 25 and the last Met represents the amino acid 35 and it is also investigated in gel state for the first time. Amyloid beta-peptide(25-35) induces apoptotic effects on isolated brain mitochondria and the redox state of methionine-35, plays a key role in the induction of programmed cellular death pathways and toxic events[2]. Comparative studies are also carried out using vibrational absorption and ECD. The conformational preference of $A\beta(25-35)$ peptide film is also investigated using vibrational absorption and VCD spectroscopy[1].
In vivo	The Alzheimer's disease (AD) model group present with spatial learning and memory impairments. CDS and donepezil administration significantly ameliorate the $A\beta_{25-35}$ peptide-induced memory impairment in both Morris water maze ( $P < 0.05$ ) and passive avoidance task ( $P < 0.01$ ) compared to the AD model group[3]. Rats are injected with $\beta$ -Amyloid (25-35) intracerebroventricularly and compound Danshen (CDS) are subsequently administered once daily for 23 days. Rats' behavior is monitored using Morris water maze and passive avoidance. Real time PCR and Western blotting are used in determining amyloid precursor protein (APP), $\beta$ -site APP cleaved enzyme-1(BACE1), Presenilin-1 (PS1), Insulin-degrading enzyme (IDE) and neprilysin (NEP) in hippocampus.

## Solubility Information

Solubility	H <sub>2</sub> O: 3.33 mg/mL (3.14 mM),Sonication is recommended. DMSO: 97 mg/mL (91.49 mM),Sonication is recommended. ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (3.11 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may</i>

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In vivo Formulation	<i>vary and should be modified based on specific experimental conditions.</i>
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.9432 mL	4.7158 mL	9.4316 mL
5 mM	0.1886 mL	0.9432 mL	1.8863 mL
10 mM	0.0943 mL	0.4716 mL	0.9432 mL
50 mM	0.0189 mL	0.0943 mL	0.1886 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

D'Ursi AM, et al. Solution structure of amyloid beta-peptide (25-35) in different media. J Med Chem. 2004 Aug 12; 47(17):4231-8.

Clementi ME, et al. Abeta(31-35) and Abeta(25-35) fragments of amyloid beta-protein induce cellular death throughapoptotic signals: Role of the redox state of methionine-35. FEBS Lett. 2005 May 23;579(13):2913-8.

Liu M, et al. Cognitive improvement of compound danshen in an A $\beta$ 25-35 peptide-induced rat model of Alzheimer's disease. BMC Complement Altern Med. 2015 Oct 23;15:382.

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