# Product Data Sheet

Product Name: Amyloid β-Peptide (10-20) (human)
Cat. No.: GP10057

## Chemical Properties

| | | | |
|---|---|---|---|
| Cas. No. | 152286-31-2 | | |
| Chemical Name | Amyloid β-Peptide (10-20) (human) | | |
| SMILES | CC(C)CC(C(=O)NC(C(C)C)C(=O)NC(CC1=CC=CC=C1)C(=O)NC(CC2=CC=CC=C2)C(=O)O)NC(=O)C(CCCCN)NC(=O)C(CCC(=O)N)NC( | | |
| Formula | $C_{71}H_{99}N_{17}O_{16}$ | M.Wt | |
| Solubility | ≥ 144.7mg/mL in DMSO | Storage | |
| General tips | For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be | | |
| Shipping Condition | Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request. | | |
| Structure | Amyloid β-Peptide (10-20) (human) | | |

## Background

The amyloid β-peptide (Aβ) has a central role in initiating neurodegeneration in Alzheimer disease (AD)[1]. It is widely believed to be an incidental catabolic byproduct of the amyloid β protein precursor (APP) with no normal physiological function.[2]

Aβ has been shown to be a ligand for a number of different receptors and other molecules[3-5]. It is transported between tissues and across the blood brain barrierby complex trafficking pathways[6]. Aβ is modulated in response to a variety of environmental stressors and is able to induce pro-inflammatory activities[7].

Soluble amyloid β-peptide fragment that is a substrate for gelatinase A/type IV collagenase/MMP-2 and APP secretase; cleaved between Lys16 and Leu17.

References:
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2. Soscia SJ, Kirby JE, Washicosky KJ, Tucker SM, Ingelsson M, Hyman B, Burton MA, Goldstein LE, Duong S, Tanzi RE, Moir RD (2010). Bush, Ashley I.. ed. The Alzheimer's Disease-Associated Amyloid β-Protein Is an Antimicrobial Peptide. PLoS ONE 5 (3)
3. Le Y, Gong W, Tiffany HL, Tumanov A, Nedospasov S, et al. (2001) Amyloid (b)42 activates a G-protein-coupled chemoattractant receptor, FPR-like-1.J Neurosci 21: RC123.
4. Koldamova RP, Lefterov IM, Lefterova MI, Lazo JS (2001) Apolipoprotein A-I directly interacts with amyloid precursor protein and inhibits Ab aggregation and toxicity. Biochemistry 40: 3553–3560.
5. Maezawa I, Jin LW, Woltjer RL, Maeda N, Martin GM, et al. (2004) Apolipoprotein E isoforms and apolipoprotein AI protect from amyloid precursor protein carboxy terminal fragment-associated cytotoxicity. J Neurochem 91: 1312–1321.
6. Tanzi RE, Moir RD, Wagner SL (2004) Clearance of Alzheimer’s Ab peptide: the many roads to perdition. Neuron 43: 605–608.
7. Paris D, Town T, Parker TA, Tan J, Humphrey J, et al. (1999) Inhibition of Alzheimer’s b-amyloid induced vasoactivity and proinflammatory response in microglia by a cGMP-dependent mechanism. Exp Neurol 157: 211–221.

***Caution: Product has not been fully validated for medical applications. For research use only.***
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