

Product Data Sheet

Product Name: Dynamin inhibitory peptide

Cat. No.: GP10022

Chemical Properties

Cas. No. 251634-21-6

Chemical Name Dynamin inhibitory peptide

SMILES CC(C)C(C(=O)N1CCCC1C(=O)NC(CO)C(=O)NC(CCCN=C(N)N)C(=O)N2CCCC2C(=O)NC(CC(=O)N)C(=O)NC(CCCN=C(N)N)C(=O)NC(C)C(=O)N3CCCC3C(=O)O)NC(=O)C(CCC(=O)N)N

Formula C₄₇H₈₀N₁₈O₁₄

M.Wt 1121.26

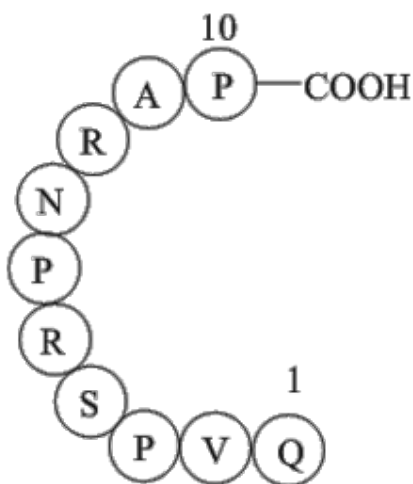
Solubility ≥112.1mg/mL in DMSO

Storage Desiccate at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Dynamin Inhibitory Peptide is a peptide (Gln-Val-Pro-Ser-Arg-Pro-Asn-Arg-Ala-Pro) inhibitor of the GTPase dynamin.

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

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Dynamin is a 100-kDa large GTPase that functions to tubulate membranes and liberate nascent vesicles from the Golgi apparatus and plasma membrane. Dynamin also plays a role in many processes including division of organelles, cytokinesis and microbial pathogen resistance.

Dynamin inhibitory peptide competitively blocks binding of dynamin to amphiphysin thus prevents endocytosis when administered intracellularly. Reduces GABA_A receptor internalization and increases miniature ISPC amplitude and frequency in neurons expressing GABA_A receptors.

References:

1. McNiven, M. A., Cao, H., Pitts, K. R. & Yoon, Y. (2000) Trends Biochem. Sci. 25, 115-120.
2. Hinshaw, J. E. (2000) Annu. Rev. Cell Dev. Biol 16, 483-519.
3. Thoms S, Erdmann R (Oct 2005). "Dynamin-related proteins and Pex11 proteins in peroxisome division and proliferation.". FEBS J 272 (20): 5169-81.
4. Grabs et al (1997) The SH3 domain of amphiphysin binds the proline-rich domain of dynamin at a single site that defines a new SH3 binding consensus sequence. J.Biol.Chem. 272 13419-25.
5. Kittler et al (2000) Constitutive endocytosis of GABA_A receptors by an association with the adaptin AP2 complex modulates inhibitory synaptic currents in hippocampal neurons. J.Neurosci. 20 7972-7.
6. Nong et al (2003) Glycine binding primes NMDA receptor internalization. Nature 422 302-7.

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