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)		
Formula	$C_{47}H_{80}N_{18}O_{14}$	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 ℃ 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	Dynamin inhibitory peptide		

Background

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

Dynamin is a 100-kDa large GTPase that functions to tabulate 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 GABAA 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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