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DATASHEET

ZIP

Product overview

Name	ZIP
Cat No	HB0669
Biological description	Zeta inhibitory peptide (ZIP) is a cell permeable protein kinase MZeta (PKMζ) inhibitor. Selectively prevents long term potentiation (LTP) maintenance *in vitro* and disrupts maintenance of hippocampal LTP *in vivo*. ZIP interferes with the maintenance of acquired memories and has disruptive effects on memory (e.g. spatial / recognition memory and aversive and appetitive memories) via an unknown mechanism of action.
Alternative names	z-Pseudosubstrate inhibitory peptide
Biological action	Inhibitor
Purity	>95%
Description	PKMζ inhibitor. Interferes with the maintenance of acquired memories.

Images

Solubility & Handling

Storage instructions	-20°C (desiccate)
Solubility overview	Soluble in water (1 mg/ml)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	Myr-Ser-Ile-Tyr-Arg-Arg-Gly-Ala-Arg-Arg-Trp-Arg-Lys-Leu-OH
Molecular Weight	1928.4
Chemical structure	
Molecular Formula	$C_{90}H_{154}N_{30}O_{17}$
CAS Number	863987-12-6
PubChem identifier	16156119
SMILES	[H]N([C@@H](CO)C(=O)N[C@@H]([C@@H](C)CC)C(=O)N[C@@H](CC1=CC=C(O)C=C1)C(=O)N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CCCNC(N)=N)C(=O)NCC(=O)N[C@@H](C)C(=O)N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CC1=CNC2=C1C=CC=C2)C(=O)N[C@@H](CCCNC(N)=N)C(=O)N[C@@H](CCCCN)C(=O)N[C@@H](CC(C)C)C(O)=O)C(=O)CCCCCCCCCCCCC
InChiKey	CRKARHQCXWSUMV-HOHDCHNJSA-N

References

Cellular pharmacology of protein kinase Mζ (PKMζ) contrasts with its in vitro profile: implications for PKMζ as a mediator of memory.

Wu-Zhang AX *et al* (2012) J Biol Chem 287(16)
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Protein kinase Mzeta is necessary and sufficient for LTP maintenance.

Ling DS *et al* (2002) Nat Neurosci 5(4)
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Persistent phosphorylation by protein kinase Mzeta maintains late-phase long-term potentiation.

Serrano P *et al* (2005) J Neurosci 25(8)
PubMedID 15728837