Product Data Sheet

Product Name: Myomodulin
Cat. No.: GC31200

Chemical Properties

Cas. No.	110570-93-9		
SMILES	Pro-Met-Ser-Met-Leu-Arg-Leu-NH2		
Formula	$C_{36}H_{67}N_{11}O_8S_2$	M.Wt	846.12
Solubility	Soluble in DMSO	Storage	Store 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 stored below -20℃ 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	Myomodulin		

Background

Myomodulin is a neuropeptide present in molluscs, insects, and gastropods.

Myomodulin decreases period and increases spike frequency in oscillator heart interneurons. Myomodulin enhances the hyperpolarization-activated cation current and inhibits the electrogenic Na/K pump[1]. A myomodulin peptide has been suggested to mediate the response of the giant glial cells to stimulation of the Leydig interneuron in the central nervous system of the leech Hirudo medicinalis. The peptide evokes a membrane outward current (EC50 approximately 2 μM), which neither desensitizes nor shows any sign of run-down, and elicits a K+ conductance increase of the glial cell membrane[2]. Myomodulin modulate ion channels in a wide variety of organisms including Aplysia, Lymnaea, and Pleurobranchaea. Myomodulin differentially modulates the potassium currents and reduces the amplitude of the Ca2+ current by 20%[3].

[1]. Tobin AE, et al. Myomodulin increases Ih and inhibits the NA/K pump to modulate bursting in leech heart interneurons. J Neurophysiol. 2005 Dec;94(6):3938-50. [2]. Britz FC, et al. Membrane responses of the leech giant glial cell to the peptide transmitter myomodulin. Peptides. 2002 Dec;23(12):2117-25. [3]. Wang Y, et al. Modulatory effects

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of myomodulin on the excitability and membrane currents in Retzius cells of the leech. J Neurophysiol. 1999 Jul;82(1):216-25.

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