Product Data Sheet

Product Name: Phe-Met-Arg-Phe, amide
Cat. No.: GC31184

Chemical Properties

Cas. No.	64190-70-1		
SMILES	Phe-Met-Arg-Phe-NH2		
Formula	$C_{29}H_{42}N_8O_4S$	M.Wt	598.76
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	Phe-Met-Arg-Phe, amide		

Background

Phe-Met-Arg-Phe, amide dose dependently (ED50=23 nM) activates a K+ current in the peptidergic caudodorsal neurons.

In the molluscan central nervous system, Phe-Met-Arg-Phe, amide (FMRFa) acts on K+ channels in sensory, motor-, and neuroendocrine neurones. Phe-Met-Arg-Phe, amide activates a novel K+ current that is characterized by a combined voltage- and receptor-dependent gating mechanism, with both factors being necessary for opening of the channels[1]. Phe-Met-Arg-Phe, amide (1 μM) significantly inhibits glucose stimulated (300 mg/dL) insulin release (p

Phe-Met-Arg-Phe, amide (FMRFamide) stimulates growth hormone secretion in conscious OVX rats. The presence of Phe-Met-Arg-Phe, amide-like immunoreactivity in neuronal elements in the hypothalamus suggested a role for this in the hypothalamic control of the anterior pituitary function. The injection of 200 ng (313.8 picomoles) of FMRFamide (in 2 uL) produces a significantly increased plasma GH 15 min after injection. The GH-increasing effect of 400-800 ng (627-1255 picomoles) of FMRFamide is already developed after 5 min and lasted up to 30 min[3].

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[1]. Kits KS, et al. Phe-Met-Arg-Phe-amide activates a novel voltage-dependent K+ current through a lipoxygenasepathway in molluscan neurones. J Gen Physiol. 1997 Nov;110(5):611-28. [2]. Sorenson RL, et al. Phe-met-arg-phe-amide (FMRF-NH2) inhibits insulin and somatostatin secretion and anti-FMRF-NH2 sera detects pancreatic polypeptide cells in the rat islet. Peptides. 1984 Jul-Aug;5(4):777-82. [3]. Ottlecz A, et al. Phe-Met-Arg-Phe-amide (FMRFamide) stimulated growth hormone secretion in conscious OVX rats. Neuropeptides. 1987 Feb-Mar;9(2):161-7.

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