Product Data Sheet

Product Name: Human PTHrP-(1-36)
Cat. No.: GC72790

Chemical Properties

Cas. No.	172867-62-8		
Formula	$C_{191}H_{305}N_{59}O_{52}$	M.Wt	4259.83
Solubility	H_2O : 100 mg/mL (23.48 mM; Need ultrasonic)	Storage	Sealed storage, away from moisture and light, under nitrogen
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			

AVSEHQLLHDKGKSIQDLRRRFFLHHLIAEIHTAEI

Background

Human PTHrP-(1-36) is a secretory form of PTHrP with anticalciuric effects. Human PTHrP-(1-36) enhances beta cell function and proliferation. Human PTHrP-(1-36) can be used in the research of humoral percalcemia of malignancy (HHM) and perparatroidism.

Human PTHrP-(1-36) (EC50: 0.05 nM) increases intracellular calcium in human epidermal keratinocytes[2].Human PTHrP-(1-36) (100 nM, 24 h) increases human β-cell proliferation[3].Human PTHrP-(1-36) (100 nM, 30 min) enhances insulin secretion in human islets[3].PTHrP-(1-36) (mouse,

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EC50: 1 nM) induces a rapid Ca2+ response in UMR 106 cells[4].

PTHrP-(1-36) (mouse, 160 µg/kg, s.c., for 5 days/week for 7, 30, or 90 days) enhances beta cell regeneration and increases beta cell mass in a mouse model of partial pancreatectomy[5].PTHrP-(1-36) (mouse, 100 µg/kg, s.c., every other day) reverses the observed decrease of Wisp1 expression in the diabetic mice[6].

References:
[1]. Everhart-Caye M, et al. Paratroid hormone (PTH)-related protein(1-36) is equipotent to PTH(1-34) in humans. J Clin Endocrinol Metab. 1996 Jan;81(1):199-208.
[2]. Orloff JJ, et al. Analysis of PTHRP binding and signal transduction mechanisms in benign and malignant squamous cells. Am J Psiol. 1992 May;262(5 Pt 1):E599-607.
[3]. Guthalu Kondegowda N, et al. Paratroid hormone-related protein enhances human ß-cell proliferation and function with associated induction of cyclin-dependent kinase 2 and cyclin E expression. Diabetes. 2010 Dec;59(12):3131-8.
[4]. Valín A, et al. C-terminal paratroid hormone-related protein (PTHrP) (107-139) stimulates intracellular Ca(2+) through a receptor different from the type 1 PTH/PTHrP receptor in osteoblastic osteosarcoma UMR 106 cells. Endocrinology. 2001 Jul;142(7):2752-9.
[5]. Mozar A, et al. Paratroid Hormone-Related Peptide (1-36) Enhances Beta Cell Regeneration and Increases Beta Cell Mass in a Mouse Model of Partial Pancreatectomy. PLoS One. 2016 Jul 8;11(7):e0158414. [6]. Portal-Núñez S, et al. Alterations of the Wnt/beta-catenin pathway and its target genes for the N- and C-terminal domains of paratroid hormone-related protein in bone from diabetic mice. FEBS Lett. 2010 Jul 16;584(14):3095-100.

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