

Product Data Sheet

Parathyroid Hormone (1-34), bovine

Cat. No.: A1114
CAS No.: 12583-68-5
Formula: C183H288N54O50S2
M.Wt: 4108.71
Synonyms: H2N-Ala-Val-Ser-Glu-Ile-Gln-Phe-Met-His-Asn-Leu-Gly-Lys-His-Leu-Ser-Ser-Met-Glu-Arg-Val-Glu-Trp-Leu-Arg-Lys-Lys-Leu-Gln-Asp-Val-His-Asn-Phe-OH
Target: Neuroscience
Pathway: Neuroscience Peptides
Storage: Store at -20°C



Solvent & Solubility

≥410.9 mg/mL in DMSO; ≥43.8 mg/mL in H₂O; ≥64.6 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	0.2434 mL	1.2169 mL	2.4339 mL
	5 mM	0.0487 mL	0.2434 mL	0.4868 mL
	10 mM	0.0243 mL	0.1217 mL	0.2434 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Enhancer of blood calcium level

IC₅₀ & Target

Cell Viability Assay

In Vitro

Cell Line:	Mouse primary bone marrow stromal cells (BMSCs).
Preparation method:	Dissolved in acetic acid [1]. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic

		bath for a while. Stock solution can be stored below -20°C for several months.
	Reacting conditions:	100 ng/ml; 2 h.
	Applications:	bPTH(1-34) increases RANKL mRNA levels and inhibits osteoprotegerin (OPG) gene expression. bPTH(1-34) also increases the amount of TRACP+ cells.
In Vivo	Animal experiment	
	Animal models:	C57BL/6 mice.
	Dosage form:	80 µg/kg/day; 7 or 14 days; injected subcutaneously.
	Applications:	PTH(1-34) significantly increases the percentage of TN/CD115(+) CD117(high) and TN/CD115(+) CD117(int) cells in bone marrow on day 7. However, PTH(1-34) decreases the amount of TN/CD115(+) CD117(low) cells by 39% on day 7. PTH increases receptor activator of NF-κB ligand (RANKL)- and macrophage colony-stimulating factor (M-CSF)-stimulated in vitro osteoclastogenesis and bone resorption in TN/CD115+ cells.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1]. Huang JC, Sakata T, Pflieger LL, et al. PTH differentially regulates expression of RANKL and OPG. J Bone Miner Res. 2004, 19(2): 235-244.
- [2]. Jacome-Galarza CE, Lee SK, Lorenzo JA, et al. Parathyroid hormone regulates the distribution and osteoclastogenic potential of hematopoietic progenitors in the bone marrow. J Bone Miner Res, 2011, 26(6): 1207-1216.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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