

Parathyroid hormone (1-34) (rat) acetate

Cat. No.:	HY-P2279A
Molecular Formula:	C ₁₈₂ H ₂₉₅ N ₅₅ O ₅₀ S ₂
Molecular Weight:	4117.76
Sequence:	Ala-Val-Ser-Glu-Ile-Gln-Leu-Met-His-Asn-Leu-Gly-Lys-His-Leu-Ala-Ser-Val-Glu-Arg-Met -Gln-Trp-Leu-Arg-Lys-Lys-Leu-Gln-Asp-Val-His-Asn-Phe <small>AVSEIQLMHNLGKHLASVERMQWLRKKLQDVHNF (acetate salt)</small>
Sequence Shortening:	AVSEIQLMHNLGKHLASVERMQWLRKKLQDVHNF
Target:	Thyroid Hormone Receptor
Pathway:	Vitamin D Related/Nuclear Receptor
Storage:	Sealed storage, away from moisture and light, under nitrogen Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 100 mg/mL (24.29 mM)
* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		0.2429 mL	1.2143 mL	2.4285 mL
	5 mM		0.0486 mL	0.2429 mL	0.4857 mL
	10 mM		0.0243 mL	0.1214 mL	0.2429 mL

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

BIOLOGICAL ACTIVITY

Description

Parathyroid hormone (1-34) (rat) (acetate) is a parathyroid hormone. Parathyroid hormone (1-34) (rat) improves both cortical and cancellous bone structure. Parathyroid hormone (1-34) (rat) can be used for the research of osteoporosis^{[1][2]}.

In Vivo

Parathyroid hormone (1-34) (rat) (acetate) (s.c; 40 mg/kg; per day; for 4 weeks) promotes the formation of bone^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	ovariectomized (Ovx) rats ^[1]
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Dosage:	40 mg/kg
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Administration:	s.c, per day, for 4 weeks
Result:	Preserved Cn-BV/TV and trabecular connectivity, and combined estrogen and PTH caused a 40% increment in Cn-BV/TV while maintaining comparable trabecular connectivity with that seen in the Shamoperated animals. Prevented further loss of connectivity and Cn-BV/TV, and combined estrogen and PTH resulted in as much as a 300% improvement in one of the parameters of trabecular connectivity, node to node strut length, and a 106% increase in Cn-BV/TV, with respect to the bone status at the initiation of treatment.

REFERENCES

- [1]. Yebin Jiang, et al. Recombinant human parathyroid hormone (1-34) [teriparatide] improves both cortical and cancellous bone structure. J Bone Miner Res. 2003 Nov;18(11):1932-41.
- [2]. V Shen, et al. Loss of cancellous bone mass and connectivity in ovariectomized rats can be restored by combined treatment with parathyroid hormone and estradiol. J Clin Invest. 1993 Jun;91(6):2479-87.

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

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