

## Parathyroid hormone (1-34) (rat)

<b>Cat. No.:</b>	HY-P2279		
<b>CAS No.:</b>	98614-76-7		
<b>Molecular Formula:</b>	C <sub>180</sub> H <sub>291</sub> N <sub>55</sub> O <sub>48</sub> S <sub>2</sub>		
<b>Molecular Weight:</b>	4057.71		
<b>Sequence Shortening:</b>	AVSEIQLMHNLGKHLASVERMQWLRKKLQDVHNF		
<b>Target:</b>	Thyroid Hormone Receptor		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Powder	-80°C	2 years
		-20°C	1 year
	In solvent	-80°C	6 months
		-20°C	1 month

### BIOLOGICAL ACTIVITY

<b>Description</b>	Parathyroid hormone (1-34) (rat) 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 <sup>[1][2]</sup> .								
<b>In Vivo</b>	<p>Parathyroid hormone (1-34) (rat) (s.c; 40 mg/kg; per day; for 4 weeks) promotes the formation of bone<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table> <tr> <td>Animal Model:</td> <td>ovariectomized (Ovx) rats<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>40 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>s.c, per day, for 4 weeks</td> </tr> <tr> <td>Result:</td> <td> <p>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.</p> <p>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.</p> </td> </tr> </table>	Animal Model:	ovariectomized (Ovx) rats <sup>[1]</sup>	Dosage:	40 mg/kg	Administration:	s.c, per day, for 4 weeks	Result:	<p>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.</p> <p>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.</p>
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### REFERENCES

- [1]. 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.
- [2]. 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.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA