

Teriparatide

Chemical Properties

CAS No. : 52232-67-4

Formula: C181H291N55O51S2

Molecular Weight: 4117.72

SVSEIQLMHNLGKHLNSMERVEWLRKKLQDVHNF

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	Teriparatide is an agonist of PHT(IC50 of 2 nM in HEK293 cells).
Targets(IC50)	Others,Thyroid hormone receptor(THR)
In vivo	In Teriparatide-treated animals, Trabecular bone calcium and dry weight of the distal femur increased significantly. The increase in trabecular calcium compared with vehicle control occurred as early as 1 week after initiation of treatment with a 35% and 45% increase, respectively, for 10 µg/kg and 40 µg/kg Teriparatide. Similar results were observed for trabecular dry weight. After 4 weeks of treatment with 10 mg/kg or 40 mg/kg Teriparatide, trabecular calcium increased significantly by 70% and 123%, respectively, compared with the vehicle and by 73%. The 4-week Teriparatide administration + 8-week vehicle administration decrease the pore ratio, number, and density as well as the cortical area and thickness, compared with the 4-week Teriparatide administration, but the pore ratio, cortical area, and thickness are still higher compared with the 12-week vehicle administration. The 4-week Teriparatide administration increase the pore ratio, number, and density as well as the cortical area, thickness, and bone mineral content (BMC), without significant influencing the volumetric bone mineral density (BMD). The 4-week Teriparatide administration + 8-week higherdose IBN administration increase the cortical area, thickness, BMC, and volumetric BMD and decrease the pore ratio, but not the pore number or density, compared with the 4-week Teriparatide administration + 8-week vehicle administration.

Solubility Information

Solubility	H2O: 50 mg/mL (12.14 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0049 mL	0.0243 mL	0.0486 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Iwamoto J, et al. Influence of Teriparatide and Ibandronate on Cortical Bone in New Zealand White Rabbits: A HR-QCT Study. Calcif Tissue Int. 2016 Nov;99(5):535-542.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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