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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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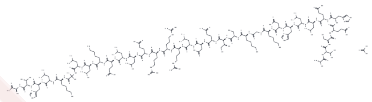
Data Sheet (Cat.No.TP1215L)

TargetMol

Abaloparatide acetate(247062-33-5 free base)

Chemical Properties



CAS No. :

Formula: C176H304N56O51

Molecular Weight: 4020.71

Appearance: no data available

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

Biological Description

Description	Abaloparatide acetate is a parathyroid hormone receptor 1 PTHR1 analogue and an effective and selective activator of the PTHR1 signaling pathway.
Targets(IC50)	Others
In vitro	MC3T3-E1 osteoblast cells are treated with 0.01-100 nM of Abaloparatide for 40 min at 37 ℃ in the presence of 0.5 mM IBMX. The results reveals that exposure of cells to Abaloparatide caused a robust elevation of intracellular cAMP levels. Abaloparatide treatment results in a 2.3-fold decrease in EC50 value for cAMP formation compared to teriparatide (EC50s of 0.3 nM and 0.7 nM, respectively)[1]. A dose-dependent stimulation of β-arrestin/PTHR1 interaction is demonstrated by abaloparatide. Consistently, the calculates the EC50 value for abaloparatide is 1.6-fold lower than that of teriparatide (EC50s of 0.9 nM and 1.5 nM, respectively)[1]. Abaloparatide efficiently induces a dose-dependent stimulation of PTHR1 internalization with a dose as low as 0.1 nM and reaches maximum stimulation at 100 nM concentration. The EC50 value of 0.8 nM for Abaloparatide[1].
In vivo	Abaloparatide (1-25 μg/kg; subcutaneous injection; daily; for 12 months; female Sprague-Dawley rats) treatment increases biochemical bone formation markers, histomorphometric indices of bone formation on trabecular, endocortical, and periosteal surfaces. Abaloparatide induces substantial increases in trabecular bone volume and density and improvements in trabecular microarchitecture. Abaloparatide stimulates periosteal expansion and endocortical bone apposition at the tibial diaphysis, leading to marked increases in cortical bone volume and density. Whole-body bone mineral density (BMD) is increasing 25% after 12 months of abaloparatide (25?μg/kg) in osteopenic ovariectomized (OVX) rats[2].

Solubility Information

Solubility	DMSO: 2.5 mM, (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2487 mL	1.2436 mL	2.4871 mL
5 mM	0.0497 mL	0.2487 mL	0.4974 mL
10 mM	0.0249 mL	0.1244 mL	0.2487 mL
50 mM	0.005 mL	0.0249 mL	0.0497 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.

Reference

Sahbani K, et al. Abaloparatide exhibits greater osteoanabolic response and higher cAMP stimulation and β-arrestin recruitment than teriparatide. Physiol Rep. 2019 Oct;7(19):e14225.