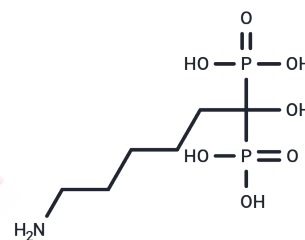


Neridronate

Chemical Properties

CAS No. :	79778-41-9
Formula:	C ₆ H ₁₇ NO ₇ P ₂
Molecular Weight:	277.15
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	Neridronate is an aminodiphosphate that is commonly used in diseases associated with disorders of bone metabolism and complex regional pain syndromes (CRPS) such as osteogenesis imperfecta (OI) and Paget's disease of bone (PDB).
Targets(IC50)	Others
In vitro	Neridronate inhibits osteoclast activity, suppresses bone resorption markers, and reduces bone metastasis potential in breast cancer cells. Neridronate also modulates Wnt signaling by increasing sclerostin, leading to reduced bone formation[1].
In vivo	Neridronate shows strong anti-resorptive and bone-strengthening effects via intravenous or intramuscular administration. Neridronate increases BMD, reduces fracture rates, and relieves pain in models of osteogenesis imperfecta (2 mg/kg, i.v., every 3 months), Paget's disease (100 mg i.v. × 2 days), and CRPS-I (100 mg i.v. every 3 days × 4). Monthly dosing (25-100 mg) also benefits GIO, β-thalassemia-induced osteoporosis, and PHPT[1].

Solubility Information

Solubility	H ₂ O: 3 mg/mL (10.82 mM), adjust pH to 8 with NaOH (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6082 mL	18.0408 mL	36.0815 mL
5 mM	0.7216 mL	3.6082 mL	7.2163 mL
10 mM	0.3608 mL	1.8041 mL	3.6082 mL
50 mM	0.0722 mL	0.3608 mL	0.7216 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

Gatti D, et al. Clinical development of neridronate: potential for new applications. Ther Clin Risk Manag. 2013;9: 139-47.

Guiducci L, et al. Monthly Intramuscular Neridronate for the Treatment of Postmenopausal Osteoporosis: Results of a 6-Year Prospective Italian Study. Int J Endocrinol. 2019 Feb 6;2019:9802827.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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