

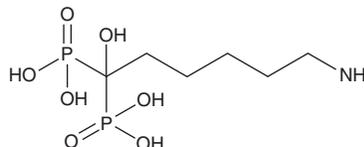
PRODUCT INFORMATION



Neridronic Acid

Item No. 29692

CAS Registry No.: 79778-41-9
Formal Name: P,P'-(6-amino-1-hydroxyhexylidene)bis-phosphonic acid
Synonym: Neridronate
MF: C₆H₁₇NO₇P₂
FW: 277.2
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

Neridronic acid is an amino bisphosphonate that inhibits farnesyl pyrophosphate (FPP) synthase (IC₅₀ = 388.2 nM in a cell-free assay).¹ It decreases the differentiation of RAW 264.7 cells into osteoclasts in a CRL-12257 co-culture model of osteoclastogenesis when used at concentrations ranging from 0.001 to 100 μM.² Neridronic acid (30 μM) inhibits FGF2-induced proliferation and tube formation in human umbilical vein endothelial cells (HUVECs).³ It reduces the loss of trabeculae and increases bone density in the tibial metaphysis of growing rats when administered subcutaneously at a dose of 0.1 mg/kg per day.⁴

References

1. Dunford, J.E., Kwaasi, A.A., Rogers, M.J., *et al.* Structure-activity relationships among the nitrogen containing bisphosphonates in clinical use and other analogues: Time-dependent inhibition of human farnesyl pyrophosphate synthase. *J. Med. Chem.* **51(7)**, 2187-2195 (2008).
2. Nicolin, V., Bareggi, R., Baldini, G., *et al.* Effects of neridronic acid on osteoclasts derived by physiological dual-cell cultures. *Acta Histochem.* **109(5)**, 397-402 (2007).
3. Ribatti, D., Nico, B., Mangieri, D., *et al.* Neridronate inhibits angiogenesis in vitro and in vivo. *Clin. Rheumatol.* **26(7)**, 1094-1098 (2007).
4. Schenk, R., Egli, P., Fleisch, H., *et al.* Quantitative morphometric evaluation of the inhibitory activity of new aminobisphosphonates on bone resorption in the rat. *Calcif. Tissue Int.* **38(6)**, 342-349 (1986).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM