

Data Sheet

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Product Name : Alendronate sodium hydrate

Cat. No. : PC-42809

CAS No. : 121268-17-5

Molecular Formula : C₄H₁₈NNaO₁₀P₂

Molecular Weight : 325.1237
Target : Other Targets

Solubility : H2O: ≥ 28.57 mg/mL; DMSO: < 3.2 mg/mL

Na⁺ P OH NH₂ H₂C OH OH H₂C

Biological Activity

Alendronate sodium hydrate (Alendronate;MK 217;G-704650 Adronat) is a bisphosphonate that acts as a specific inhibitor of osteoclastmediated bone resorption, inhibits osteoclast protein-tyrosine phosphatase (PTPepsilon) with IC50 of 2 uM; also inhibits the activities of other bacterially expressed PTPs such as PTPsigma and CD45, suppresses in vitro formation of multinucleated osteoclasts from osteoclast precursors and in vitro bone resorption by isolated rat osteoclasts with IC50 of 10 uM; also is also inhibits farnesyl disphosphate synthase with IC50 of 1.7 uM.

Osteoporosis

Approved

References

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Opas EE, et al.Biochem Pharmacol. 1997 Sep 15;54(6):721-7.

David P, et al. J Bone Miner Res. 1996 Oct;11(10):1498-507.

Schmidt A, et al. Proc Natl Acad Sci U S A. 1996 Apr 2;93(7):3068-73.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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