Alendronate prodrug-1

Cat. No.: HY-161336

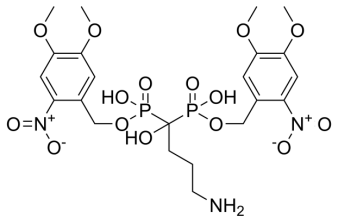
Molecular Formula: $C_{22}H_{31}N_3O_{15}P_2$

Molecular Weight: 639.44

Target: Others

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Alendronate prodrug-1(compound 2) is an inhibitor of farnesyl diphosphate synthase (FPPS). Alendronate prodrug-1 has an antiproliferative effect with an IC_{50} value of 34.0 μM[1].

In Vitro

Alendronate prodrug-1 has an antiproliferative effect after light illumination (365 nm, 4 mW/cm2, 10 min) with an IC_{50} value of 34.0 μM[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	MDA-MB-231
Concentration:	1-1000 μM
Incubation Time:	72 h
Result:	Had a negligible effect on the viability of cancer cells at the highest tested concentration of 400 μM. Inhibited cell proliferative with an IC_{50} value of 34.0 μM after exposure to UV light(365nm，4mW/cm 2, 10 min).

REFERENCES

[1]. Aurélie Descamps, et al. Synthesis and preliminary anticancer evaluation of photo-responsive prodrugs of hydroxymethylene bisphosphonate alendronate. Eur J Med Chem. 2024.

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