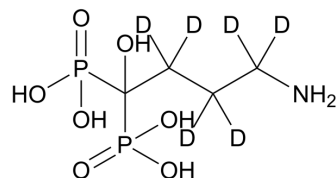


## Alendronic acid-d<sub>6</sub>

<b>Cat. No.:</b>	HY-B0631S		
<b>CAS No.:</b>	1035437-39-8		
<b>Molecular Formula:</b>	C <sub>4</sub> H <sub>7</sub> D <sub>6</sub> NO <sub>7</sub> P <sub>2</sub>		
<b>Molecular Weight:</b>	255.13		
<b>Target:</b>	Isotope-Labeled Compounds		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 5 mg/mL (19.60 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.9196 mL	19.5979 mL	39.1957 mL
	5 mM	0.7839 mL	3.9196 mL	7.8391 mL
	10 mM	0.3920 mL	1.9598 mL	3.9196 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Alendronic acid-d<sub>6</sub> is the deuterium labeled Alendronic acid. Alendronic acid, a bisphosphonate, is a farnesyl diphosphate synthase (FDPS) inhibitor. Alendronic acid inhibits osteoclast-mediated bone resorption. Alendronic acid shows efficacy in postmenopausal osteoporosis, malignant hypercalcemia and Paget's disease<sup>[1]</sup>.

#### In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs<sup>[1]</sup>.

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

### REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

[2]. Teixeira S, et al. Alendronic Acid as Ionic Liquid: New Perspective on Osteosarcoma. *Pharmaceutics.* 2020 Mar 24;12(3). pii: E293.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA