LKT Laboratories, Inc.

Alendronate Monosodium Trihydrate

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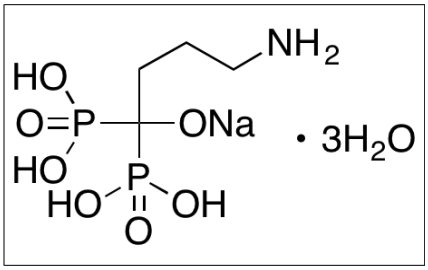
Product Information

Product ID A4515
CAS No. 121268-17-5
Chemical Name 4-Amino-1-hydroxybutylidine-1,1-bisphosphate

Synonym Alendronic acid, ABDP

Formula $C_4H_{12}NNaO_7P_2 \cdot 3H_2O$
Formula Wt. 325.08
Melting Point 233-235°C (dec)
Purity ≥98%
Solubility Soluble in water (10 mg/mL). PBS 0.25 mg/mL. DMSO <1 mg/mL.



Pricing and Availability

Bulk quanitites available upon request

Product ID	Size	List Price
A4515	100 mg	$98.90
A4515	500 mg	$345.60

Store Temp Ambient
Ship Temp Ambient
Description Alendronate is a second generation bisphosphonate that exhibits anti-resorptive, anti-inflammatory, immunomodulatory, and anticancer chemotherapeutic activities. Alendronate inhibits bone resorption but does not have any effects on bone mineralization; it also inhibits osteoclast formation and decreases phosphorylation of Akt and ERK1/2 in vitro. In animal models, alendronate decreases production of Th2 and Th17 cytokines and eotaxin-2, suppressing antigen-induced pulmonary immune responses. Additionally, this compound increases δγ T cell activation and inhibits tumor growth in vivo.

References

Tsubaki M, Komai M, Itoh T, et al. Nitrogen-containing bisphosphonates inhibit RANKL- and M-CSF-induced osteoclast formation through the inhibition of ERK1/2 and Akt activation. J Biomed Sci. 2014 Feb 3;21:10. PMID: 24490900.

Sasaki O, Imamura M, Yamazumi Y, et al. Alendronate attenuates eosinophilic airway inflammation associated with suppression of Th2 cytokines, Th17 cytokines, and eotaxin-2. J Immunol. 2013 Sep 15;191(6):2879-89. PMID: 23935198.

Gutman D, Epstein-Barash H, Tsuriel M, et al. Alendronate liposomes for antitumor therapy: activation of γδ T cells and inhibition of tumor growth. Adv Exp Med Biol. 2012;733:165-79. PMID: 22101722.

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