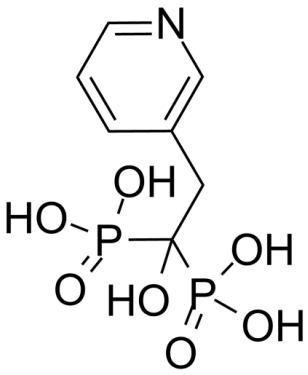
Data Sheet

Product Name:	Risedronic acid
Cat. No.:	CS-1964
CAS No.:	105462-24-6
Molecular Formula:	C7H11NO7P2
Molecular Weight:	283.11
Target:	Others
Pathway:	Others
Solubility:	H2O : < 0.1 mg/mL (insoluble); DMSO : < 1 mg/mL (insoluble or slightly soluble)



BIOLOGICAL ACTIVITY:

Risedronic acid (Risedronate) is a pyridinyl biphosphonate which inhibits osteoclast-mediated bone resorption. Target: Others Risedronate, which was promoted in Croatia a few months ago, is the latest (III) generation of bisphosphonates, the most efficient anti-resorption drugs that inhibit osteoclast-mediated bone resorption and change the bone metabolism. Risedronate is hence the first line of bisphosphonates for the reduction of vertebral and non-vertebral fracture risks in postmenopausal women with osteoporosis or those with a high risk of osteoporosis. It also efficiently prevents bone loss or improves bone density in men and women on a long-term corticosteroid therapy . The administration of 20 and 25 mg/kg risedronate for 4 days led to decreases of parasitemia of 68.9% and 83.6%, respectively. On the seventh day of treatment the inhibitions were 63% and 88.9% with 20 and 25 mg/kg, respectively. After recovering the parasitemia, a dose-response curve was obtained for estimating the ID50 (dose causing 50% inhibition), equivalent to 17 ± 1.8 mg/kg after 7 days of treatment. Four days after the interruption of treatment (11 days postinfection), the parasitemias of the groups treated with 10, 15, 20, and 25 mg/kg/day were 15.3%, 15.9%, 15.2%, and 5.7%, respectively. Conversely, the group that received PBS presented parasitemia of 25.6%. Among the groups treated with risedronate, only the animals that received 25 mg/kg had a significant inhibition of 77.8% (see Table S1 in the supplemental material), demonstrating that even after treatment discontinuation, the parasitemia of the animals remained low in relation to that of the controls .

References:

[1]. Giljevic Z, et al. Treatment of osteoporosis by risedronate-- speed, efficacy and safety. Reumatizam. 2006;53(2):66-71.

[2]. Jordao FM, et al. In vitro and in vivo antiplasmodial activities of risedronate and its interference with protein prenylation in Plasmodium falciparum. Antimicrob Agents Chemother. 2011 May;55(5):2026-31.

CAIndexNames:

Phosphonic acid, P,P'-[1-hydroxy-2-(3-pyridinyl)ethylidene]bis-

SMILES:

OC(P(O)(O)=O)(P(O)(O)=O)CC1=CN=CC=C1

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

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

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