Risedronic acid sodium

Cat. No.: HY-B0119

CAS No.: 115436-72-1

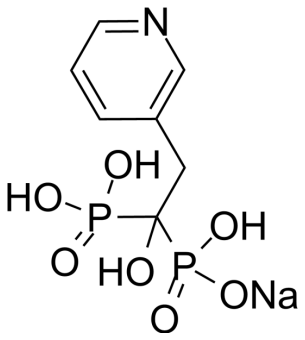
Molecular Formula: $C_7H_{10}NNaO_7P_2$

Molecular Weight: 305.09

Target: Others

Pathway: Others

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 8.33 mg/mL (27.30 mM; Need ultrasonic)
DMSO : < 1 mg/mL (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2777 mL	16.3886 mL	32.7772 mL
	5 mM	0.6555 mL	3.2777 mL	6.5554 mL
	10 mM	0.3278 mL	1.6389 mL	3.2777 mL

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

In Vivo

1. Add each solvent one by one: PBS
Solubility: 16.67 mg/mL (54.64 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Risedronic acid sodium is a pyridinyl biphosphonate which inhibits osteoclast-mediated bone resorption.Target: Risedronic acid sodium, 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. Risedronic acid sodium 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 [1].The administration of 20 and 25 mg/kg Risedronic acid sodium 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 Risedronic acid sodium, 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 [2].Clinical indications: Bone resorption; Male osteoporosis; Osteogenesis imperfecta; Osteoporosis; Pagets bone disease Toxicity: abdominal pain; anxiety, back pain; belching, bladder irritation; bone disorders and pain; bronchitis; bursitis; cataracts; chest pain; colitis; constipation; depression; diarrhea; difficulty breathing

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.

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