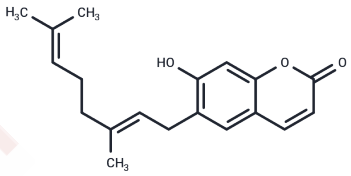
Data Sheet (Cat.No.T125801)

TargetMol

Ostruthin

Chemical Properties



CAS No. : 148-83-4

Formula: C19H22O3

Molecular Weight: 298.38

Storage: Keep away from moisture,Keep away from direct sunlight,Store under nitrogen
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Ostruthin (Ostruthine) is a natural coumarin with antimicrobial activity that can effectively inhibit the growth of a wide range of mycobacteria with a minimum inhibitory concentration of MIC= 3.4-107.4 μM.
Targets(IC50)	Antibacterial
In vitro	Ostruthin exhibits potent antiproliferative activity against vascular smooth muscle cells (VSMCs) in vitro. In rat aortic VSMCs, ostruthin inhibited 10% serum-induced proliferation with an IC_{50} of 11 ± 2 μM (resazurin assay) and suppressed DNA synthesis with an IC_{50} of 17 ± 6 μM (BrdU assay). No significant cytotoxicity was observed at active concentrations (≤30 μM, cell viability >92%)[1].
In vivo	Ostruthin, administered intraperitoneally at 5 mg/kg in ovariectomized female rats, significantly increased core body temperature within 30 minutes, with effects lasting over 3 hours. This thermogenic effect was observed regardless of progesterone treatment and is likely mediated by activation of TREK1/2 potassium channels, suggesting Ostruthin's potential for alleviating low body temperature symptoms in postmenopausal women[2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3514 mL	16.7572 mL	33.5143 mL
5 mM	0.6703 mL	3.3514 mL	6.7029 mL
10 mM	0.3351 mL	1.6757 mL	3.3514 mL
50 mM	0.067 mL	0.3351 mL	0.6703 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Joa H, et al. Identification of ostruthin from Peucedanum ostruthium rhizomes as an inhibitor of vascular smooth muscle cell proliferation. J Nat Prod. 2011 Jun 24;74(6):1513-6.
Uchida Y, Samejima Y, Kamijo S, Hosonuma M, Izumizaki M. Ostruthin, a TWIK-Related Potassium Channel Agonist, Increases the Body Temperature in Ovariectomized Rats With or Without Progesterone Administration. Cureus. 2024 Jul 29;16(7):e65706.

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