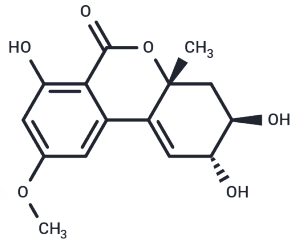
Data Sheet (Cat.No.TN3401)

TargetMol

Altenuene

Chemical Properties



CAS No. : 29752-43-0

Formula: C15H16O6

Molecular Weight: 292.28

Storage: Store at low temperature,Keep away from direct sunlight,Keep away from moisture
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	Altenuene is a mycotoxin, it frequently occurs in food and feed items infested by fungi of the genus Alternaria. Altenuene demonstrates moderate activity against Staphylococcus aureus. Altenuene also exhibits cytotoxic activity against lung cancer cell line A549, breast cancer cell line MDA-MB-231 and pancreatic cancer cell line PANC-1.
Targets(IC50)	Antifection
In vitro	METHODS AND RESULTS:Two new polyketides, 7-hydroxy-3, 5-dimethyl-isochromen-1-one (1) and 6-hydroxy-8-methoxy-3a-methyl-3a,9b-dihydro-3H-furo[3,2-c] isochromene-2,5-dione (2), along with eleven known compounds, 5'-methoxy-6-methyl-biphenyl-3,4,3'-triol (3), 7-hydroxy-3-(2-hydroxy-propyl)-5-methyl-isochromen-1-one (4), rubralactone (5), isoAltenuene (6), Altenuene (7), dihydroAltenuenes A (8), altenusin (9), alterlactone (10), 6-O-methylnorlichexanthone (11), norlichexanthone (12), and griseoxanthone C (13) were isolated from the culture of the endolichenic fungus Ulocladium sp. Compound 2 was obtained as a racemate with an unprecedented chemical skeleton. The NMR data assignments for 3 and 4 were achieved for the first time. Compounds 1-13 were screened for their antimicrobial and radical scavenging activities. CONCLUSIONS: Compound 1 showed some antifungal activity against Candida albicans SC 5314 with IC(50) of 97.93 ± 1.12 μM. Compounds 11-13 showed strong activity against Bacillus subtilis with IC(50) in the range of 1-5 μM. Compound 12 significantly inhibited the growth of methicillin-resistant Staphylococcus aureus with IC (50) of 20.95 ± 1.56 μM. Compounds 9 and 10 showed strong radical scavenging activity in comparison with vitamin C. The plausible biosynthetic pathways for compounds 1, 2, and 4-8 were discussed.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4214 mL	17.1069 mL	34.2138 mL
5 mM	0.6843 mL	3.4214 mL	6.8428 mL
10 mM	0.3421 mL	1.7107 mL	3.4214 mL
50 mM	0.0684 mL	0.3421 mL	0.6843 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.