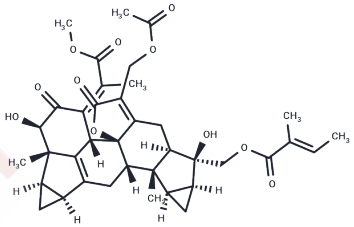
Data Sheet (Cat.No.TN5335)

TargetMol

Chloraholide D

Chemical Properties



CAS No. : 943136-39-8

Formula: C38H44O11

Molecular Weight: 676.75

Storage: Store at low temperature
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	Chloraholide D is a natural lindane-type sesquiterpene dimer and selective potassium channel blocker that stimulates reactive oxygen species ROS levels to cause cell cycle arrest in the G2 phase, modulates Bcl-2 and Bax and FAK, thereby inhibiting MCF-7 cell growth and triggering apoptosis. Chloraholide D inhibits tumor proliferation, migration and angiogenesis in in vivo experiments and has anti-breast cancer potential.
Targets(IC50)	FAK,Bcl-2 Family,Potassium Channel
In vitro	Chloraholides D exhibited potent and selective potassium channel blocking activity on the delayed rectifier (IK) K+ current in rat dissociated hippocampal neurons, with the IC50 values of 2.7±0.3μM.[1] Chloraholide D exhibited potent cytotoxicity against MCF-7 breast cancer cells with an IC_{50} of 6.7μM, and moderate activity against HepG2 liver cancer cells (IC_{50} = 13.7μM).[2]
In vivo	In MCF-7 xenograft zebrafish models, Chloraholide D (2.5-10μM) significantly reduced tumor fluorescence intensity and the number of metastatic foci.[2] In transgenic zebrafish models, Chloraholide D disrupted the formation of intersegmental vessels (ISVs) and dorsal longitudinal anastomotic vessels (DLAVs) in a dose-dependent manner (5-20μM), indicating strong anti-angiogenic activity.[2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4777 mL	7.3883 mL	14.7765 mL
5 mM	0.2955 mL	1.4777 mL	2.9553 mL
10 mM	0.1478 mL	0.7388 mL	1.4777 mL
50 mM	0.0296 mL	0.1478 mL	0.2955 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

Yang, S.-P., Gao, Z.-B., Wu, Y., Hu, G.-Y., & Yue, J.-M. (2008). Chloraholides C–F: a new class of potent and selective potassium channel blockers from Chloranthus holostegius. Tetrahedron, 64(9), 2027–2034.
Li, Y., Liu, W., Xu, J., & Guo, Y. (2023). Chloraholide D, a Lindenane-Type Sesquiterpenoid Dimer from Chloranthus holostegius Suppressing Breast Cancer Progression. Molecules, 28(20), 7070.