

Coronarin D

**Chemical Properties**

CAS No.:	119188-37-3
Formula:	C20H30O3
Molecular Weight:	318.5
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

**Biological Description**

Description	Coronarin D shows promising antifungal activity against <i>C. albicans</i> in vitro, the minimum inhibitory concentration (MIC) and the minimum fungicidal concentration (MFC) were 2 and 4 mg/mL, respectively; it is active against tested Gram-positive bacteria, inactive for tested Gram-negative bacteria, and weakly active against tested fungi; using coronarin D-antibiotic drug combination can combat the infectious diseases. Coronarin D inhibits NF-kappaB activation pathway, which leads to inhibition of inflammation, invasion, and osteoclastogenesis, as well as potentiation of apoptosis.
Targets(IC <sub>50</sub> )	Antifection: None Bcl-2: None c-Myc: None Caspase: None COX: None NF-κB: None TNF-α: None
In vitro	Coronarin D is a labdane-type diterpene from the rhizomes of <i>Hedychium coronarium</i> . In the view of our ongoing effort to explore its novel biological activity, antimicrobial activity study of Coronarin D was performed. METHODS AND RESULTS: The results showed that Coronarin D was active against tested Gram-positive bacteria, inactive for tested Gram-negative bacteria, and weakly active against tested fungi. The antibacterial effect of the combination of Coronarin D with nine classical antibiotics against four Gram-positive bacteria was also evaluated. The fractional inhibitory concentration indices (FICI) of Coronarin D-antibiotics combinations, calculated from the checkerboard assay, were used as synergism indicator. Out of 36 combinations, 47% showed total synergism, 33% had partial synergistic interaction, 17% showed no effect, and 3% showed antagonism. By combination with Coronarin D at concentration of 0.25 minimal inhibitory concentration (MIC), the activities of antibiotics were boosted to 4- to 128-fold. CONCLUSIONS: These finding suggested an attractive approach to combat the infectious diseases by using Coronarin D-antibiotic drug combination.

**Solubility Information**

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.140 mL	15.699 mL	31.397 mL
5 mM	0.628 mL	3.140 mL	6.279 mL
10 mM	0.314 mL	1.570 mL	3.140 mL
50 mM	0.063 mL	0.314 mL	0.628 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

## Reference

1. Antimicrobial activity of coronarin D and its synergistic potential with antibiotics. Biomed Res Int. 2014;2014:581985.
2. Antifungal activity of coronarin D against Candida albicans. Oral Surg Oral Med Oral Pathol Oral Radiol. 2012 Jul;114(1):61-6.

Inhibitors · Natural Compounds · Compound Libraries

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Tel:781-999-4286

E-mail:info@targetmol.com

Address:36 Washington Street,Wellesley Hills,MA 02481