

## Atalantoflavone

## Chemical Properties

CAS No.:	119309-02-3
Formula:	C <sub>20</sub> H <sub>16</sub> O <sub>5</sub>
Molecular Weight:	336.3
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

## Biological Description

Description	Atalantoflavone shows urease inhibitory potential. It displays weak cytotoxic activity against the human Caucasian prostate adenocarcinoma cell line PC-3.
Targets(IC <sub>50</sub> )	Antifection: None
In vitro	<p><b>METHODS AND RESULTS:</b> In the present study, the methanol extracts from the leaves, as well as compounds namely sigmoidin I (1), Atalantoflavone (2), bidwillon A (3), neocyclomorusin (4), 6<math>\alpha</math>-hydroxyphaseollidin (5) and neobavaisoflavone (6) (from the bark extract) were tested for their activities against a panel of Gram-negative bacteria including multi-drug resistant (MDR) phenotypes. Methods Broth microdilution method was used to determine the minimum inhibitory concentrations (MICs) and the minimum bactericidal concentrations (MBCs) of the extracts as well as compounds 1-6. Results The MIC results indicated that the crude extracts from the leaves and bark of this plant were able to inhibit the growth of 96.3 % of the 27 tested bacteria. <b>CONCLUSIONS:</b> Compounds 2-6 displayed selective activities, their inhibitory effects being obtained on 8.3 %, 41.7 %, 58.3 %, 58.3 % and 66.7 % of tested bacteria respectively for 2, 3, 5, 6 and 4. The lowest MIC value of 8 <math>\mu</math>g/mL was obtained with 6 against <i>Escherichia coli</i> ATCC8739, <i>Enterobacter cloacae</i> ECC169, <i>Klebsiella pneumoniae</i> KP55, <i>Providencia stuartii</i> NAE16 and <i>Pseudomonas aeruginosa</i> PA01.</p>

## 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	2.974 mL	14.868 mL	29.735 mL
5 mM	0.595 mL	2.974 mL	5.947 mL
10 mM	0.297 mL	1.487 mL	2.974 mL
50 mM	0.059 mL	0.297 mL	0.595 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. Antibacterial activities of the methanol extracts and compounds from *Erythrina sigmoidea* against Gram-negative multi-drug resistant phenotypes. *Bmc Complementary & Alternative Medicine*, 2015 , 15 (1) :1-7.
2. A prenylated acridone alkaloid and ferulate xanthone from barks of *Citrus medica* (Rutaceae) *Zeitschrift Für Naturforschung B*, 2015 , 70 (1) :71-75.

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