

Asebogenin

Chemical Properties

CAS No.:	520-42-3
Formula:	C16H16O5
Molecular Weight:	288.29
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Asebogenin has anti-bacterial activity, it shows inhibitory activity against <i>S. aureus</i> and methicillin-resistant <i>S. aureus</i> (IC50 of 10 and 4.5 micrograms/ml, respectively); it shows antiplasmodial activities against both a chloroquine-sensitive and a resistant strain of <i>Plasmodium falciparum</i> . Asebogenin can inhibit the proliferation of murine B cells.
Targets(IC50)	Antifection: None ATPase: None Potassium Channel: None
In vitro	METHODS AND RESULTS: Eight fractions showed inhibition of MPO enzyme (F I-IV, X, XII, XIV and XV). The highest inhibition was observed with F XIV (50microg/mL, 60.9%, p<0.001). F X and XII were the most active ones, inhibiting the gastric H(+), K(+)-ATPase activity with IC(50) values equal to 22.3microg/mL and 28.1microg/mL, respectively. All fractions, except F XV, presented detectable anti- <i>Helicobacter pylori</i> activity, with a diameter of inhibition zones ranging from 11mm up to 50mm. The best anti- <i>Helicobacter pylori</i> activity was obtained with F III and V. Both fractions killed <i>Helicobacter pylori</i> with lowest concentration values, about 6.25mug/mL. CONCLUSIONS: Sixteen pure compounds were isolated, five of them are flavonoids that possess strong anti-oxidant and free radical scavenging activity, e.g. vitexin, isovitexin, and rhamnopyranosylvitexin. Terpenoids like sitosterol, stigmasterol and phytol, which have shown gastroprotective activity, and dihydrochalcones, like Asebogenin, with anti-bacterial activity, were also isolated. Furthermore, the rare neolignan 1, that is a DNA polymerase beta lyase inhibitor, and (6S, 9S)-roseoside, that shows strong anti-bacterial activity, were isolated, for the first time, from the genus <i>Piper</i> .

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	3.469 mL	17.344 mL	34.687 mL
5 mM	0.694 mL	3.469 mL	6.937 mL
10 mM	0.347 mL	1.734 mL	3.469 mL
50 mM	0.069 mL	0.347 mL	0.694 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. Anti-secretory, anti-inflammatory and anti-Helicobacter pylori activities of several fractions isolated from Piper carpunya Ruiz & Pav. J Ethnopharmacol. 2010 Apr 21;128(3):583-9.
2. Dihydrochalcones from Piper longicaudatum. Planta Med. 2001 Mar;67(2):186-8.
3. The in vitro antiplasmodial activities of 14 plant species traditionally used in Central America for the treatment of malaria or fever were evaluated. Lipophilic extracts of Piper hispidum, Siparuna andina, S. pauciflora, S. tonduziana, and Xylopia cf. fr. Trop Med Int Health. 1999 Sep;4(9):611-5.

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