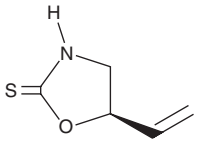
PRODUCT INFORMATION

Epigoitrin

Item No. 35620

CAS Registry No.:	1072-93-1
Formal Name:	5R-ethenyl-2-oxazolidinethione
Synonyms:	Ba 51-090278, (R)-Goitrin
MF:	C_5H_7NOS
FW:	129.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 245 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Strobilanthes cusia*



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Epigoitrin is supplied as a solid. A stock solution may be made by dissolving the epigoitrin in the solvent of choice, which should be purged with an inert gas. Epigoitrin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of epigoitrin in these solvents is approximately 3, 5, and 2 mg/ml, respectively.

Description

Epigoitrin is an alkaloid that has been found in *Crambe abyssinica* and has diverse biological activities.[1-4] It decreases norepinephrine formation by bovine dopamine-β-hydroxylase in a cell-free assay when used at a concentration of 0.1 mM.[1] Epigoitrin inhibits the proliferation of RAW 264.7 macrophages (IC_{50} = ~1 mM).[2] It increases serum cholesterol levels and liver and thyroid weight, as well as decreases serum thyroxine levels, in rats.[3] Epigoitrin (176 mg/kg) improves survival in mice made susceptible to influenza A H1N1 infection by restraint stress.[4] It also prolongs pentobarbital-induced sleeping time in male, but not female, rats.[3]

References

1. Zenker, N., Hubbard, L.S., and Wright, J. Inhibition of dopamine β-hydroxylase by goitrin, a natural antithyroid compound. *J. Nat. Prod.* **51(5)**, 862-865 (1988).
2. Hou, X., Zhang, X., Bi, J., *et al.* Indole-3-carboxaldehyde regulates RSV-induced inflammatory response in RAW264.7 cells by moderate inhibition of the TLR7 signaling pathway. *J. Nat. Med.* **75(3)**, 602-611 (2021).
3. Nishie, K. and Daxenbichler, E. Hepatic effects of *R*-goitrin in Sprague-Dawley rats. *Food Chem. Toxicol.* **20(3)**, 279-287 (1982).
4. Luo, Z., Liu, L.-F., Wang, X.-H., *et al.* Epigoitrin, an Alkaloid From *Isatis indigotica*, Reduces H1N1 Infection in Stress-Induced Susceptible Model *in vivo* and *in vitro*. *Front. Pharmacol.* **10**, 78 (2019).

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