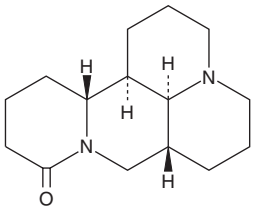
PRODUCT INFORMATION

Sophoradin

Item No. 33087

CAS Registry No.:	6882-68-4
Formal Name:	(7aR,13aR,13bR,13cS)-dodecahydro-1H,5H,10H-dipyrido[2,1-f:3′,2′,1′-ij][1,6]naphthyridin-10-one
Synonym:	(–)-Sophoridine
MF:	$C_{15}H_{24}N_2O$
FW:	248.8
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Sophora alopecuroides*



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

Laboratory Procedures

Sophoradin is supplied as a solid. A stock solution may be made by dissolving the sophoradin in the solvent of choice, which should be purged with an inert gas. Sophoradin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of sophoradin in these solvents is approximately 30 mg/ml in ethanol and DMF and approximately 10 mg/ml in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of sophoradin can be prepared by directly dissolving the solid in aqueous buffers. The solubility of sophoradin in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Sophoradin is a quinolizidine alkaloid that has been found in *S. alopecuroides* and has diverse biological activities.[1-3] It reduces viral titers in primary neonatal rat cardiomyocytes infected with coxsackievirus B3 (CVB3) when used at concentrations of 1 and 5 µg/ml.[2] Sophoradin inhibits the growth of, and induces apoptosis in, SW480 colorectal cancer cells, as well as reduces tumor growth in an SW480 mouse xenograft model.[1] It reduces increases in TNF-α, IL-8, and prostaglandin E_2 (PGE_2; Item No. 14010) levels in the inflammatory exudate in a mouse model of carrageenan-induced paw edema when administered at doses of 12.15 and 48.6 mg/kg.[3]

References

1. Liang, L., Wang, X.-Y., Zhang, X.-H., *et al.* Sophoridine exerts an anti-colorectal carcinoma effect through apoptosis induction in vitro and in vivo. *Life Sci.* **91(25-26)**, 1295-1303 (2012).
2. Zhang, Y., Zhu, H., Ye, G., *et al.* Antiviral effects of sophoridine against coxsackievirus B3 and its pharmacokinetics in rats. *Life Sci.* **78(17)**, 1998-2005 (2006).
3. Huang, X., Li, B., and Shen, L. Studies on the anti-inflammatory effect and its mechanisms of sophoridine. *J. Anal. Methods Chem.* 502626 (2014).

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