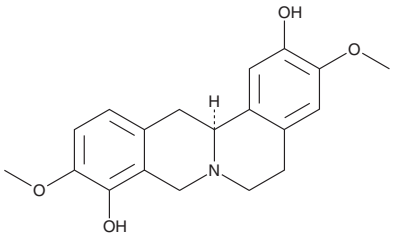
PRODUCT INFORMATION

Scoulerine

Item No. 35140

CAS Registry No.:	6451-73-6
Formal Name:	5,8,13,13aS-tetrahydro-3,10-dimethoxy-6H-dibenzo[a,g]quinolizine-2,9-diol
Synonyms:	(–)-Scoulerine, *l*-Scoulerine, (S)-Scoulerine
MF:	$C_{19}H_{21}NO_4$
FW:	327.4
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



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

Laboratory Procedures

Scoulerine is supplied as a crystalline solid. A stock solution may be made by dissolving the scoulerine in the solvent of choice, which should be purged with an inert gas. Scoulerine is slightly soluble in chloroform and methanol.

Description

Scoulerine is a benzylisoquinoline alkaloid that has been found in *C. cava* and has diverse biological activities.[1-3] It selectively binds to the dopamine D_1 and D_2 receptors (K_is = 22 and 214 nM, respectively) over the serotonin (5-HT) receptor subtypes 5-HT_{1A} and 5-HT_{2A} in HEK293 cells when used at a concentration of 10 µM.[1] Scoulerine inhibits proliferation in a panel of leukemia cell lines (IC_{50}s = 2.7-6.5 µM).[2] It inhibits methamphetamine-induced conditioned place preference in mice when administered at a dose of 5 mg/kg.[3]

References

1. Sun, H., Zhu, L., Yang, H., *et al.* Asymmetric total synthesis and identification of tetrahydroprotoberberine derivatives as new antipsychotic agents possessing a dopamine D_1, D_2 and serotonin 5-HT_{1A} multi-action profile. *Bioorg. Med. Chem.* **21(4)**, 856-868 (2013).
2. Habartova, K., Havelek, R., Seifrtova, M., *et al.* Scoulerine affects microtubule structure, inhibits proliferation, arrests cell cycle and thus culminates in the apoptotic death of cancer cells. *Sci. Rep.* **8(1)**, 4829 (2018).
3. Mi, G., Gao, Y., Yan, H., *et al.* l-Scoulerine attenuates behavioural changes induced by methamphetamine in zebrafish and mice. *Behav. Brain Res.* **298(Pt A)**, 97-104 (2016).

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