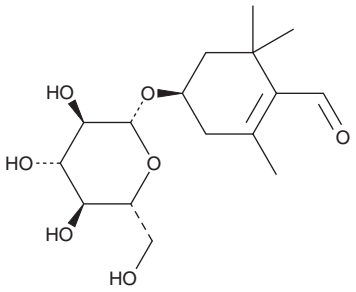
PRODUCT INFORMATION

Picrocrocin

Item No. 39914



CAS Registry No.:	138-55-6
Formal Name:	4R-(β-D-glucopyranosyloxy)-2,6,6-trimethyl-1-cyclohexene-1-carboxaldehyde
MF:	$C_{16}H_{26}O_7$
FW:	330.4
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Crocus sativus*

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

Laboratory Procedures

Picrocrocin is supplied as a solid. A stock solution may be made by dissolving the picrocrocin in the solvent of choice, which should be purged with an inert gas. Picrocrocin is soluble in methanol. Picrocrocin is slightly soluble in acetonitrile.

Picrocrocin is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Picrocrocin is a monoterpene glycoside that has been found in *C. sativus* and has anticancer activity.[1,2] It is also a biosynthetic precursor of the monoterpenoid safranal (Item No. 31399).[3] Picrocrocin inhibits the growth of HeLa cervical cancer cells (IC_{50} = 3 mM).[3]

References

1. Spinelli, M., Biancolillo, A., Battaglia, G., *et al.* Saffron characterization by a multidisciplinary approach. *Molecules* **28(1)**, 42 (2022).
2. Diretto, G., Ahrazem, O., Rubio-Moraga, Á., *et al.* UGT709G1: A novel uridine diphosphate glycosyltransferase involved in the biosynthesis of picrocrocin, the precursor of safranal in saffron *(Crocus sativus). New Phytol.* **224(2)**, 725-740 (2019).
3. Escribano, J., Alonso, G.-L., Coca-Prados, M., *et al.* Crocin, safranal and picrocrocin from saffron (*Crocus sativus* L.) inhibit the growth of human cancer cells in vitro. *Cancer Lett*. **100(1-2)**, 23-30 (1996).

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