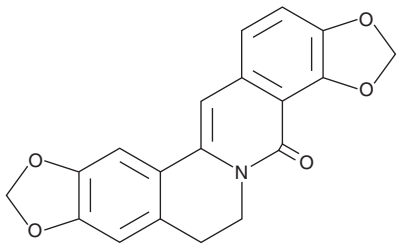
PRODUCT INFORMATION

8-Oxycoptisine

Item No. 34472

CAS Registry No.:	19716-61-1
Formal Name:	6,7-dihydro-4H-*bis*[1,3]benzodioxolo[5,6-a:4′,5′-g]quinolizin-4-one
Synonym:	8-Oxocoptisine
MF:	$C_{19}H_{13}NO_5$
FW:	335.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 224, 348 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Thalictrum glandulosissimum*



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

Laboratory Procedures

8-Oxycoptisine is supplied as a solid. A stock solution may be made by dissolving the 8-oxycoptisine in the solvent of choice, which should be purged with an inert gas. 8-Oxycoptisine is soluble in chloroform.

Description

8-Oxycoptisine is an isoquinoline alkaloid that has been found in *Coptis chinensis* and has anticancer and gastroprotective activities.[1-3] It is an active metabolite of coptisine (Item No. 28424) formed by gut microbiota.[1] 8-Oxycoptisine is cytotoxic against NCI-N87 gastric, but not Caco-2 colon, cancer cells (IC_{50}s = 20.31 and >100 µM, respectively).[2] It reverses resistance to paclitaxel (Item No. 10461) in non-multidrug-resistant SKOV3 cells, as well as in HCT-15 cells, which endogenously express high levels of P-glycoprotein (P-gp), with EC_{50} values of 0.3 and 0.5 ng/ml, respectively.[3] It reduces colonic shortening and inflammatory cell infiltration in a mouse model of ulcerative colitis induced by dextran sulfate (DSS; Item No. 23250) when administered at doses of 50 or 100 mg/kg.[1]

References

1. Ai, G., Huang, Z., Cheng, J., *et al.* Gut microbiota-mediated transformation of coptisine into a novel metabolite 8-oxocoptisine: Insight into its superior anti-colitis effect. *Front. Pharmacol.* **12**, 12:639020 (2021).
2. Qian, P. and Yang, X.-W. Five new alkaloids from Coptidis Rhizoma-Euodiae Fructus couple and their cytotoxic activities against gastrointestinal cancer cells. *Fitoterapia* **93**, 74-80 (2014).
3. Min, Y.D., Yang, M.C.M., Lee, K.H., *et al.* Protoberberine alkaloids and their reversal activity of P-gp expressed multidrug resistance (MDR) from the rhizome of *Coptis japonica* Makino. *Arch. Pharm. Res.* **29(9)**, 757-761 (2006).

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