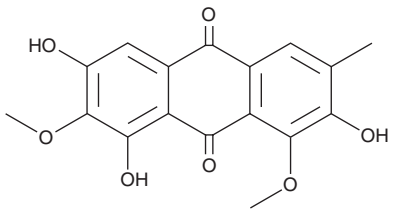
PRODUCT INFORMATION

Aurantioobtusin

Item No. 27481

CAS Registry No.:	67979-25-3
Formal Name:	1,3,7-trihydroxy-2,8-dimethoxy-6-methyl-9,10-anthracenedione
MF:	$C_{17}H_{14}O_7$
FW:	330.3
Purity:	≥95%
UV/Vis.:	λ_{max}: 287, 389 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Cassia tora* Linn.



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

Laboratory Procedures

Aurantioobtusin is supplied as a crystalline solid. A stock solution may be made by dissolving the aurantioobtusin in the solvent of choice, which should be purged with an inert gas. Aurantioobtusin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of aurantioobtusin in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Description

Aurantioobtusin is an anthraquinone originally isolated from *Cassia* seeds with diverse biological activities.[1-5] It inhibits rat lens aldose reductase (RLAR) *in vitro* (IC_{50} = 13.6 µM).[1] Aurantioobtusin (10 and 100 µM) activates the aryl hydrocarbon receptor (AhR) in a concentration-dependent manner.[2] It inhibits rat platelet aggregation induced by arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607), ADP, and collagen.[3] Aurantioobtusin induces vasorelaxation in isolated precontracted rat mesenteric artery rings, an effect that is inhibited by the PI3K inhibitor LY290042 or inhibition of endothelial nitric oxide synthase (eNOS).[4]

References

1. Jang, D.S., Lee, G.Y., Kim, Y.S., *et al.* Anthraquinones from the seeds of *Cassia tora* with inhibitory activity on protein glycation and aldose reductase. *Biol. Pharm. Bull.* **30(11),** 2207-2210 (2007).
2. Amakura, Y., Yoshimura, M., Takaoka, M., *et al.* Characterization of natural aryl hydrocarbon receptor agonists from cassia seed and rosemary. *Molecules* **19(4),** 4956-4966 (2014).
3. Yun-Choi, H.S., Kim, J.H., and Takido, M. Potential inhibitors of platelet aggregation from plant sources, V. Anthraquinones from seeds of *Cassia obtusifolia* and related compounds. *J. Nat. Prod.* **53(3),** 630-633 (1990).
4. Li, S., Li, Q., Lv, X., *et al.* Aurantio-obtusin relaxes systemic arteries through endothelial PI3K/AKT/eNOS-dependent signaling pathway in rats. *J. Pharmacol. Sci.* **128(3),** 108-115 (2015).

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