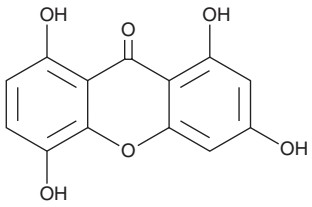
PRODUCT INFORMATION

1,3,5,8-Tetrahydroxyxanthone

Item No. 46073

CAS Registry No.: 2980-32-7
Formal Name: 1,3,5,8-tetrahydroxy-9H-xanthen-9-one
Synonyms: Desmethylbellidifolin, DMB, THX, Xan
MF: $C_{13}H_8O_6$
FW: 260.2
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

1,3,5,8-Tetrahydroxyxanthone (THX) is supplied as a solid. A stock solution may be made by dissolving the THX in the solvent of choice, which should be purged with an inert gas. THX is soluble (≥10 mg/ml) in DMSO.

Description

THX is a xanthone that has been found in *G. acuta* that has diverse biological activities.[1-4] It reduces PI3K, phosphorylated AKT, and phosphorylated mTOR levels in, and inhibits proliferation of, HT-29 and LoVo colorectal cancer cells (IC_{50}s = 83.42 and 69.87 µM, respectively).[1] THX decreases TNF-α, IL-6, inducible nitric oxide synthase (iNOS), and COX-2 levels in LPS-stimulated RAW 264.7 macrophages and reduces body weight loss, bloody stool, and diarrhea in a rat model of ulcerative colitis (UC).[2] It inhibits α-glucosidase and aldose reductase 2 (IC_{50}s = 5.2 and 0.09 µM, respectively) and prevents hydrogen peroxide-induced decreases in viability of INS-1 pancreatic β-cells.[3] THX reduces plasma malondialdehyde (MDA) levels, lipid levels, and ketone bodies concentration and increases plasma glucose levels in a mouse model of ketosis.[4]

References

1. Lu, M.-Q., Ruan, J.-Y., Li, H.-M., *et al.* Xanthones from *Gentianella acuta* (Michx.) hulten ameliorate colorectal carcinoma via the PI3K/Akt/mTOR signaling pathway. *Int. J. Mol. Sci.* **24(3),** 2279 (2023).
2. Ni, Y., Liu, M., Yu, H., *et al.* Desmethylbellidifolin from *Gentianella acuta* ameliorate TNBS-induced ulcerative colitis through antispasmodic effect and anti-inflammation. *Front. Pharmacol.* **10,** 1104 (2019).
3. Zheng, H.-H., Luo, C.-T., Chen, H., *et al.* Xanthones from *Swertia mussotii* as multitarget-directed antidiabetic agents. *ChemMedChem* **9(7),** 1374-1377 (2014).
4 Xiao, H.-B., Sun, Z.-L., and Zhou, N. 1,3,5,8-Tetrahydroxyxanthone regulates ANGPTL3-LPL pathway to lessen the ketosis in mice. *Eur. J. Pharm. Sci.* **46(1-2),** 26-31 (2012).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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