

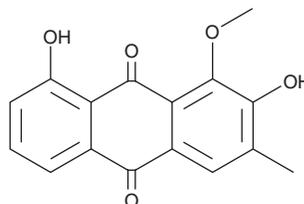
PRODUCT INFORMATION



Obtusifolin

Item No. 34757

CAS Registry No.: 477-85-0
Formal Name: 2,8-dihydroxy-1-methoxy-3-methyl-9,10-anthracenedione
MF: C₁₆H₁₂O₅
FW: 284.3
Purity: ≥98%
UV/Vis.: λ_{max}: 227, 276, 402 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years
Item Origin: Plant/*Senna* sp.



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

Laboratory Procedures

Obtusifolin is supplied as a solid. A stock solution may be made by dissolving the obtusifolin in the solvent of choice, which should be purged with an inert gas. Obtusifolin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of obtusifolin in these solvents is approximately 20 mg/ml.

Obtusifolin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, obtusifolin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Obtusifolin has a solubility of approximately 0.12 mg/ml in a 1:7 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Obtusifolin is an anthraquinone that has been found in *S. obtusifolia* and has diverse biological activities.¹⁻³ It prevents IL-1β-induced increases in NF-κB phosphorylation in chondrocytes when used at concentrations ranging from 25 to 200 μM.¹ Oral administration of obtusifolin (100 mg/kg) reduces cartilage degradation in a mouse model of osteoarthritis induced by destabilization of the medial meniscus (DMM). Obtusifolin (30 and 90 mg/kg) reduces blood glucose levels, as well as serum malondialdehyde (MDA), nitric oxide (NO), triglyceride, and cholesterol levels, and increases serum superoxide dismutase (SOD), glutathione (GSH), and catalase (CAT) activity in a mouse model of diabetes induced by streptozotocin (STZ; Item No. 13104).² It also reduces inflammatory pain in mice and neuropathic pain in rats.³

References

1. Nam, J.H., Seol, D.-W., Lee, C.-G., et al. Obtusifolin, an anthraquinone extracted from *Senna obtusifolia* (L.) H.S.Irwin & Barneby, reduces inflammation in a mouse osteoarthritis model. *Pharmaceuticals (Basel)* **14**(3), 249 (2021).
2. Tang, Y. and Zhong, Z. Obtusifolin treatment improves hyperlipidemia and hyperglycemia: Possible mechanism involving oxidative stress. *Cell Biochem. Biophys.* **70**(3), 1751-1757 (2014).
3. He, Z.-W., Wei, W., Li, S.-P., et al. Anti-allodynic effects of obtusifolin and gluco-obtusifolin against inflammatory and neuropathic pain. *Biol. Pharm. Bull.* **37**(10), 1606-1616 (2014).

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.

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