

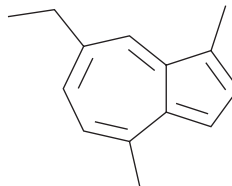
PRODUCT INFORMATION



Chamazulene

Item No. 36072

CAS Registry No.: 529-05-5
Formal Name: 7-ethyl-1,4-dimethyl-azulene
Synonym: Dimethylene
MF: C₁₄H₁₆
FW: 184.3
Purity: ≥98%
UV/Vis.: λ_{max}: 245, 285, 289 nm
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years
Item Origin: Natural/Source unknown



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

Laboratory Procedures

Chamazulene is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. A stock solution may be made by dissolving the chamazulene in the solvent of choice. Chamazulene is soluble in DMSO. It is also slightly soluble in water.

Description

Chamazulene is a terpene that has been found in chamomile (*M. recutita*) flowers and has anti-inflammatory and antioxidant activities.¹ It reduces increases in matrix metalloproteinase-3 (MMP-3), MMP-9, COX-2, inducible nitric oxide synthase (iNOS), and p65 NF-κB levels in IL-1β-stimulated primary rat chondrocytes when used at a concentration of 10 μg/ml. Chamazulene (10 and 20 μg/ml) reduces IL-1β-induced production of malondialdehyde (MDA) and increases levels of superoxide dismutase (SOD), catalase, and glutathione peroxidase (GPX) in primary rat chondrocytes. *In vivo*, chamazulene (25 and 50 mg/kg) reduces hind paw volume, serum levels of MDA, TNF-α, and IL-6, and cartilage erosion in a rat model of osteoarthritis induced by complete Freund's adjuvant (CFA).

Reference

1. Ma, D., He, J., and He, D. Chamazulene reverses osteoarthritic inflammation through regulation of matrix metalloproteinases (MMPs) and NF-κβ pathway in in-vitro and in-vivo models. *Biosci. Biotechnol. Biochem.* **84(2)**, 402-410 (2020).

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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