

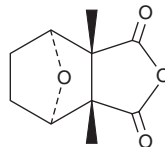
PRODUCT INFORMATION



Cantharidin

Item No. 14589

CAS Registry No.: 56-25-7
Formal Name: (3aR,4S,7R,7aS)-rel-hexahydro-3a,7a-dimethyl-4,7-epoxyisobenzofuran-1,3-dione
Synonym: NSC 61805
MF: C₁₀H₁₂O₄
FW: 196.2
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Cantharidin is supplied as a solid. A stock solution may be made by dissolving the cantharidin in the solvent of choice. Cantharidin is soluble in the organic solvent DMSO, which should be purged with an inert gas, at a concentration of approximately 100 mM.

Description

Cantharidin is a natural toxin produced by blister beetles that moderately inhibits protein phosphatases 1 (PP1) (IC₅₀ = 1.7 μM) and PP2A (IC₅₀ = 0.2 μM) and only weakly inhibits the activity of PP2B (IC₅₀ = 1 mM).^{1,2} It has been shown to stimulate cell cycle progression and induce premature mitosis, used topically (0.7%) as an anti-wart treatment, and has been shown to be active in cervical, tongue, neuroblastoma, bone, leukemia, ovarian, colon, and various other cancer cell lines.²

References

1. Honkanen, R.E. Cantharidin, another natural toxin that inhibits the activity of serine/threonine protein phosphatases types 1 and 2A. *FEBS Lett.* **330(3)**, 283-286 (1993).
2. McCluskey, A., Sim, A.T.R., and Sakoff, J.A. Serine-threonine protein phosphatase inhibitors: Development of potential therapeutic strategies. *J. Med. Chem.* **45(6)**, 1151-1175 (2002).

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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