

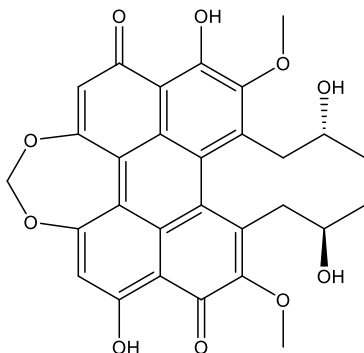
Catalog # 10-3447

Cercosporin

CAS# 35082-49-6

Lot # X109227

(13bR)-6,12-Dihydroxy-8,9-bis[(2R)-2-hydroxypropyl]-7,10-dimethoxy-perylo[1,12-def]-1,3-dioxepin-5,11-dione; NSC-153111



Cercosporin is a perylenequinone from the fungus *Cercospora kikuchii*. Upon photo-activation, perylenequinones display almost universal toxicity to a broad variety of organisms.¹ Exposure to visible and near-UV light activates this family of quinones to an excited triplet state that reacts with oxygen to form reactive oxygen species.² Displays antiproliferative effects in various tumor cell lines.³ Selectively inhibits PKC (IC₅₀=0.6-1.3 μM) over PKA and PPK.⁴

- 1) Daub *et al.* (2013), *Reactive oxygen species in plant pathogenesis: the role of perylenequinone photosensitizers*; Antioxid. Redox. Signal **19** 970
- 2) Guedes and Eriksson (2007), *Photophysics, photochemistry, and reactivity: molecular aspects of perylenequinone reactions*, Photochem. Photobiol. Sci. **6** 1089
- 3) Vandenberg *et al.* (1998), *Cytotoxicity and antiproliferative effect of hypericin and derivatives after photosensitization*; Photochem. Photobiol., **67** 119
- 4) Morgan *et al.* (2009), *Design, Synthesis, and Investigation of Protein Kinase C Inhibitors: Total Syntheses of (+)-Calphostin D, (+)-Phleichrome, Cercosporin, and New Photoactive Perylenequinones*; J. Am. Chem. Soc., **131** 9413

PHYSICAL DATA

Molecular Weight:	534.52
Molecular Formula:	C ₂₉ H ₂₆ O ₄
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (10 mg/ml)
Physical Description:	Dark red solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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