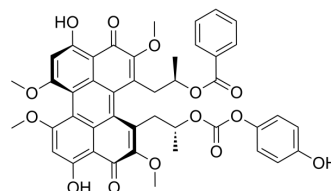


Calphostin C

| | | | |
|---------------------------|---|-------|----------|
| Cat. No.: | HY-105416 | | |
| CAS No.: | 121263-19-2 | | |
| Molecular Formula: | C ₄₄ H ₃₈ O ₁₄ | | |
| Molecular Weight: | 790.76 | | |
| Target: | Antibiotic; PKC; Apoptosis | | |
| Pathway: | Anti-infection; Epigenetics; TGF-beta/Smad; Apoptosis | | |
| Storage: | Powder | -20°C | 3 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |



SOLVENT & SOLUBILITY

In Vitro

DMSO : 1 mg/mL (1.26 mM; Need ultrasonic and warming)

| Solvent | Mass | Concentration | | |
|---------------------------|-------|---------------|-----------|------------|
| | | 1 mg | 5 mg | 10 mg |
| Preparing Stock Solutions | 1 mM | 1.2646 mL | 6.3230 mL | 12.6461 mL |
| | 5 mM | --- | --- | --- |
| | 10 mM | --- | --- | --- |
| | | | | |

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Calphostin C is a potent and specific inhibitor of protein kinase C. Calphostin C is an antitumor antibiotic. Calphostin C has 1000 times more inhibitory to protein kinase C with an IC₅₀ of 0.05 μM than other protein kinases. Calphostin C induces apoptosis in some tumor cell lines. Calphostin C has potent cytotoxic activity and antitumor activity^[1].

IC₅₀ & Target

protein kinase C^[1]

REFERENCES

[1]. Kobayashi E, et al. Calphostin C (UCN-1028C), a novel microbial compound, is a highly potent and specific inhibitor of protein kinase C. *Biochem Biophys Res Commun.* 1989;159(2):548-553.

[2]. Kobayashi E, et al. Calphostins (UCN-1028), novel and specific inhibitors of protein kinase C. I. Fermentation, isolation, physico-chemical properties and biological activities. *J Antibiot (Tokyo).* 1989;42(10):1470-1474.

Caution: Product has not been fully validated for medical applications. For research use only.

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