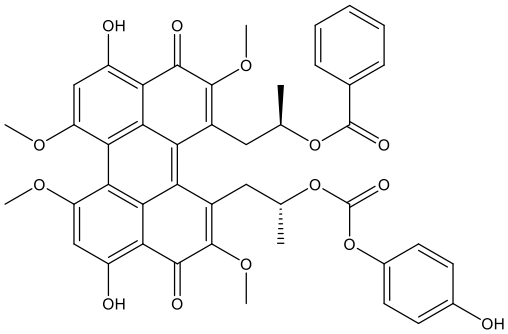
Catalog # 10-5635

Calphostin C

CAS# 121263-19-2

UNC-1028C; PKF115-584; Fermentation product from *Caldisporium cladosporioides*

Lot # X102447



Calphostin C is a potent and specific inhibitor of protein kinase C (PKC, IC_{50} = 50 nM).[1] Inhibition of PKC is light dependent[2] and is competitive with the diacylglycerol / phorbol ester binding site[1]. Calphostin C competes with the diacylglycerol / phorbol ester binding site in other proteins such as Munc13-1.[3] Reverses oxycodone-induced tolerance to respiratory depression.[4]

1) Kobayashi *et al.* (1989), *Calphostin C (UNC-1028C), a novel microbial compound, is a highly potent and specific inhibitor of protein kinase C*; Biochem. Biophys. Res. Commun. **159** 548
2) Bruns *et al.* (1991), *Inhibition of protein kinase C by calphostin C is light-dependent;* Biochem. Biophys. Res. Commun. **176** 288
3) Betz *et al.* (1998), *Munc13-1 is a presynaptic phorbol ester receptor that enhances neurotransmitter release;* Neuron **21** 123
4) Hill *et al.* (2018), *Oxycodone-induced tolerance to respiratory depression: reversal by ethanol, pregabalin and protein kinase C inhibition;* Br. J. Pharmacol. **175** 2492

PHYSICAL DATA

Molecular Weight:	790.77
Molecular Formula:	$C_{44}H_{38}O_{14}$
Purity:	>95% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (10 mg/ml)
Physical Description:	Dark red to light brown solid
Storage and Stability:	Store as supplied 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 3 months.

Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462

www.focusbiomolecules.com