

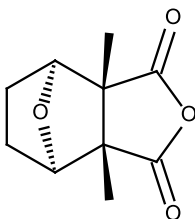
**Catalog # 10-1013**

**Cantharidin**

3 $\alpha$ ,7 $\alpha$ -Dimethylhexahydro-4,7-epoxyisobenzofuran-1,3-dione

CAS# 56-25-7

Lot # X101911



Inhibits protein phosphatase 2A ( $K_i=0.19 \mu\text{M}$ ) and PP1 ( $K_i=1.1 \mu\text{M}$ )<sup>1</sup>. Displays >500-fold selectivity over PP2B. Suppresses growth and migration of PANC-1 pancreatic cancer cells via phosphorylation and degradation of  $\beta$ -catenin<sup>2</sup>. Arrests G2/M transition via JNK/Sp1-dependent down-regulation of CDK1<sup>3</sup>. Cell permeable. Warning: Avoid skin contact, may cause skin irritation or blistering.

- 1) Honkanen (1993) *Cantharidin, another natural toxin that inhibits the activity of serine/threonine protein phosphatases types 1 and 2A*; FEBS Lett. **330** 283
- 2) Wu et al. (2014) *PP2A inhibitors suppress migration and growth of PANC-1 pancreatic cancer cells through inhibition on the Wnt/ $\beta$ -Catenin pathway by phosphorylation and degradation of  $\beta$ -catenin*; Oncol. Rep., **32** 513
- 3) Gong et al. (2015) *PP2A inhibitors arrest G2/M transition through JNK/Sp1-dependent down-regulation of CDK1 and autophagy up-regulation of p21*; Oncotarget, **6** 18469

**PHYSICAL DATA**

Molecular Weight: 196.20  
Molecular Formula: C<sub>10</sub>H<sub>12</sub>O<sub>4</sub>  
Purity: 98% (TLC: 5% Methanol/methylene chloride; R<sub>f</sub> = 0.40)  
NMR (Conforms)  
Solubility: DMSO (up to 20 mg/ml) or ethanol (up to 5 mg/ml)  
Physical Description: White solid  
Storage and Stability: Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 2 weeks.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**