# **Screening Libraries**

# **Product** Data Sheet

# 4α-Phorbol 12,13-didecanoate

Cat. No.: HY-116291 CAS No.: 27536-56-7 Molecular Formula:  $C_{40}H_{64}O_{8}$ Molecular Weight: 672.93

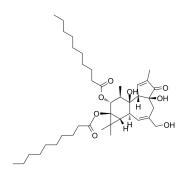
TRP Channel Target:

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage: Pure form -20°C 3 years

> In solvent -80°C 6 months

> > -20°C 1 month



#### **SOLVENT & SOLUBILITY**

#### In Vitro

DMSO: 100 mg/mL (148.60 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.4860 mL	7.4302 mL	14.8604 mL
	5 mM	0.2972 mL	1.4860 mL	2.9721 mL
	10 mM	0.1486 mL	0.7430 mL	1.4860 mL

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

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (3.72 mM); Clear solution; Need ultrasonic
- 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.5 mg/mL (3.72 mM); Clear solution; Need ultrasonic

#### **BIOLOGICAL ACTIVITY**

Description

 $4\alpha$ -Phorbol 12,13-didecanoate ( $4\alpha$ PDD) is a TRPV4 agonist with antidipsogenic effects.  $4\alpha$ -Phorbol 12,13-didecanoate promotes Ca<sup>2+</sup> influx<sup>[1]</sup>.

### **REFERENCES**

[1]. Hiromi Tsushima, et al. Antidipsogenic effects of a TRPV4 agonist, 4alpha-phorbol 12,13-didecanoate, injected into the cerebroventricle. Am J Physiol Regul Integr Comp Physiol. 2006 Jun;290(6):R1736-41.

[2]. Lori Birder, et al. Activation of urothelial transient receptor potential vanilloid 4 by 4alpha-phorbol 12,13-didecanoate contributes to altered bladder reflexes in the rat.

J Pharmacol Exp Ther. 2007 Oct;323(1):227-35.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

Tel: 609-228-6898 Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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