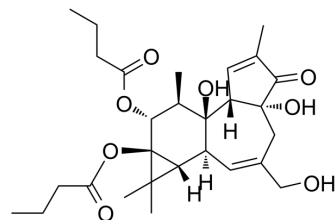


Phorbol 12,13-dibutyrate

Cat. No.:	HY-18985		
CAS No.:	37558-16-0		
Molecular Formula:	C ₂₈ H ₄₀ O ₈		
Molecular Weight:	504.61		
Target:	PKC		
Pathway:	Epigenetics; TGF-beta/Smad		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	1 year
		-20°C	6 months



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 125 mg/mL (247.72 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.9817 mL	9.9086 mL	19.8173 mL
	5 mM	0.3963 mL	1.9817 mL	3.9635 mL
	10 mM	0.1982 mL	0.9909 mL	1.9817 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.08 mg/mL (4.12 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.08 mg/mL (4.12 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.08 mg/mL (4.12 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Phorbol 12,13-dibutyrate (Phorbol dibutyrate) is a PKC activator and a potent skin tumor promoter^{[1][2]}.

IC₅₀ & Target

PKC^[1]

In Vitro

Phorbol 12,13-dibutyrate (Phorbol dibutyrate) (1 mM) activates PKC and inhibited Na/K-ATPase transport activity in OK cells [3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Front Cell Dev Biol. 13 May 2021.
- Aging. 2020 Nov 16;12(22):23017-23028.

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REFERENCES

- [1]. Singh J, et al. Immunocytochemical evidence for PDBu-induced activation of RhoA/ROCK in human internal anal sphincter smooth muscle cells. Am J Physiol Gastrointest Liver Physiol. 2011 Aug;301(2):G317-25.
- [2]. Szallasi Z, et al. Dissociation of phorbol esters leads to immediate redistribution to the cytosol of protein kinases C alpha and C delta in mouse keratinocytes. J Biol Chem. 1994 Nov 4;269(44):27159-62.
- [3]. Middleton JP, et al. Heterogeneity of protein kinase C-mediated rapid regulation of Na/K-ATPase in kidney epithelial cells. J Biol Chem. 1993 Jul 25;268(21):15958-64.
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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