

Phorbol 12,13-dibutyrate

Chemical Properties

CAS No. : 37558-16-0

Formula: C₂₈H₄₀O₈

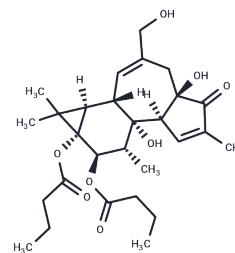
Molecular Weight: 504.61

Storage:

Keep away from direct sunlight, Store at low temperature

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Phorbol 12,13-dibutyrate (Phorbol dibutyrate) is a PKC activator that inhibits α 1-adrenoceptor-mediated positive inotropic effects in a concentration-dependent manner, induced by contraction of isolated rabbit vascular smooth muscle.
Targets(IC50)	PKC
In vitro	Phorbol 12,13-dibutyrate (1 μ M) activated PKC and inhibited Na/K-ATPase transporter activity in OK cells but not in LLC-PK1 cells [3].

Solubility Information

Solubility	DMSO: 242.5 mg/mL (480.57 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (7.93 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0396 mL	0.1982 mL	0.3963 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- 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.
- 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.
- 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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