

Store at
-20C
#12808**PDBu (Phorbol 12,13-Dibutyrate)**

1 mg



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Background

Phorbol 12, 13-Dibutyrate (PDBu) is a phorbol ester and a potent activator of protein kinase C (PKC). Frequently used in cancer research, PDBu is widely characterized to promote tumors in a variety of tissue types (1,2). PDBu treatment of cells can lead to activation of downstream PKC targets such as p44/42 MAPK and MARCKS (3-5). Although less potent than TPA, research has shown PDBu elicits less nonspecific binding (6,7) and is less hydrophobic allowing for easy wash out from cells in tissue culture (8).

Molecular Formula

C₂₈H₄₀O₈

Molecular Weight

504.61 g/mol

Purity

>99%

CAS

37558-16-0

Solubility

Soluble in DMSO at 25mg/ml and EtOH at 20mg/ml.

Storage

Store lyophilized or in solution at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

Directions for Use

PDBu is supplied as a lyophilized powder. For a 2 mM stock, reconstitute the 1 mg in 990.9 µl DMSO. Working concentrations and length of treatment can vary depending on the desired effect, but it is typically used at 20-2000 nM for 15-30 min. Soluble in DMSO or ethanol.

Background References

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4. Bapat, S. et al. (2001) *FEBS Lett* 499, 21-6.
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7. Chida, K. and Kuroki, T. (1983) *Cancer Res* 43, 3638-42.
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