

# Ingenol Mebutate

## Catalog No: tcsc2971



### Available Sizes

**Size:** 1mg

**Size:** 5mg

**Size:** 10mg



### Specifications

**CAS No:**

75567-37-2

**Formula:**

$C_{25}H_{34}O_6$

**Pathway:**

TGF-beta/Smad;Epigenetics

**Target:**

PKC;PKC

**Purity / Grade:**

>98%

**Solubility:**

10 mM in DMSO

**Alternative Names:**

Ingenol 3-angelate;PEP005

**Observed Molecular Weight:**

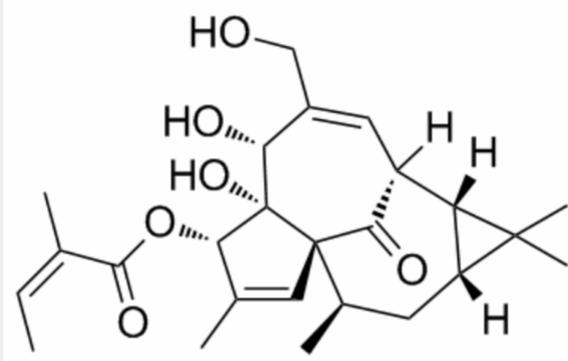
430.53

## Product Description

Ingenol Mebutate is an active ingredient in *Euphorbia peplus*, acts as a potent **PKC** modulator, with  $K_i$ s of 0.3, 0.105, 0.162, 0.376, and 0.171 nM for PKC- $\alpha$ , PKC- $\beta$ , PKC- $\gamma$ , PKC- $\delta$ , and PKC- $\epsilon$ , respectively, and has antiinflammatory and antitumor activity.

IC<sub>50</sub> & Target: Ki: 0.3 nM (PKC- $\alpha$ ), 0.105 nM (PKC- $\beta$ ), 0.162 nM (PKC- $\gamma$ ), 0.376 nM (PKC- $\delta$ ), 0.171 nM (PKC- $\epsilon$ )<sup>[1]</sup>

**In Vitro:** Ingenol Mebutate (Ingenol 3-angelate) is an active ingredient in *Euphorbia peplus*, acting as a potent PKC activator, with  $K_i$ s of 0.3, 0.105, 0.162, 0.376, and 0.171 nM for PKC- $\alpha$ , PKC- $\beta$ , PKC- $\gamma$ , PKC- $\delta$ , and PKC- $\epsilon$ , respectively. Ingenol Mebutate also EC<sub>50</sub>s of 13 ± 2.4 nM (PKC- $\alpha$ ), 4.37 ± 0.4 nM (PKC- $\beta$ I), 10.5 ± 2.2 nM (PKC- $\beta$ II), 38.6 ± 2.9 nM (PKC- $\delta$ ), 1.08 ± 0.01 nM (PKC- $\epsilon$ ), 0.9 ± 0.13 nM (PKC- $\mu$ ) in WEHI-231 cells, 198 ± 12.5 nM (PKC- $\alpha$ ), 69.1 ± 8.2 nM (PKC- $\beta$ I), 4.6 ± 0.4 nM (PKC- $\epsilon$ ) and 1 nM (PKC- $\mu$ ) in HOP-92 cells, 635 ± 245 nM (PKC- $\alpha$ ), 146 ± 35 nM (PKC- $\beta$ I), 4.7 ± 0.7 nM (PKC- $\delta$ ), 1.1 ± 0.5 nM (PKC- $\epsilon$ ), and 30 nM (PKC- $\mu$ ) in Colo-205 cells. Ingenol Mebutate sensitizes WEHI-231 cells, HOP-92 and Colo-205 cells, with IC<sub>50</sub>s of 1.41 ± 0.255 nM, 3.24 ± 2.01 nM, and 11.9 ± 1.307 nM, respectively<sup>[1]</sup>. Ingenol Mebutate (PEP005; 20 nM) actions are PKC- $\delta$  dependent, induces apoptosis in primary AML marrow blasts but not in normal myeloblasts<sup>[2]</sup>. Ingenol Mebutate (PEP005) activates PKC $\delta$  and inhibits PKC $\alpha$ . Colo205-R cells (IC<sub>50</sub>: >10  $\mu$ M) are >300-fold more resistant to Ingenol Mebutate than parental Colo205-S cells<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!