

Ro 31-8220

Catalog No: tcsc1678



Available Sizes

Size: 10mg

Size: 50mg



Specifications

CAS No:

125314-64-9

Formula:

$C_{25}H_{23}N_5O_2S$

Pathway:

TGF-beta/Smad;Epigenetics

Target:

PKC;PKC

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

Bisindolylmaleimide IX

Observed Molecular Weight:

457.55

Product Description

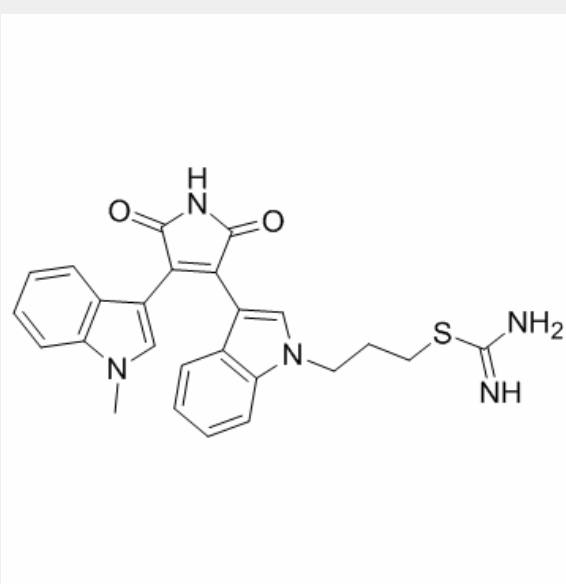
Ro 31-8220 is a potent **PKC** inhibitor, with **IC₅₀**s of 5, 24, 14, 27, 24 and 23 nM for PKC α , PKC β I, PKC β II, PKC γ , PKC ϵ and rat brain PKC, respectively. Ro 31-8220 also significantly inhibits MAPKAP-K1b, MSK1, S6K1 and GSK3 β (**IC₅₀**s, 3, 8, 15, and 38 nM,

respectively), with no effect on MKK3, MKK4, MKK6 and MKK7.

IC₅₀ & Target: IC₅₀: 5 nM (PKC α), 24 nM (PKC β I), 14 nM (PKC β II), 27 nM (PKC γ), 24 nM (PKC ϵ), 23 nM (Rat brain PKC)^[1], 3 nM (MAPKAP-K1b), 8 nM (MSK1), 15 nM (S6K1), 38 nM (GSK3 β)^[2]

In Vitro: Ro 31-8220 is a potent PKC inhibitor, with IC₅₀s of 5, 24, 14, 27, 24 and 23 nM for PKC α , PKC β I, PKC β II, PKC γ , PKC ϵ and rat brain PKC, respectively^[1]. Ro 31-8220 also significantly inhibits MAPKAP-K1b, MSK1, S6K1 and GSK3 β (IC₅₀s, 3, 8, 15, and 38 nM, respectively), with no effect on MKK3, MKK4, MKK6 and MKK7. Moreover, Ro 31-8220 directly suppresses voltage-dependent Na⁺ channels^[2]. Ro 31-8220 (1 μ M) is neuroprotective against paraoxon-induced neuronal cell death in cerebellar granule neurons, blocks paraoxon-induced caspase-3 activity, and reduces the paraoxon-induced increase in phospho-PKC pan levels^[3].

In Vivo: Ro 31-8220 (6 mg/kg/d, s.c.) is well tolerated, and has half-life of 5.7 hours in mice. Ro 31-8220-treated MLP^{-/-} mice show a dramatic rescue in fractional shortening after treatment for 6 weeks, but the WT mice shows no change^[4].



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