

# BRL-50481

Catalog No: tcsc0032567



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 25mg

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

433695-36-4

**Formula:**

$\text{C}_9\text{H}_{12}\text{N}_2\text{O}_4\text{S}$

**Pathway:**

Metabolic Enzyme/Protease

**Target:**

Phosphodiesterase (PDE)

**Purity / Grade:**

>98%

**Solubility:**

DMSO : 300 mg/mL (1228.15 mM; Need ultrasonic and warming)

**Observed Molecular Weight:**

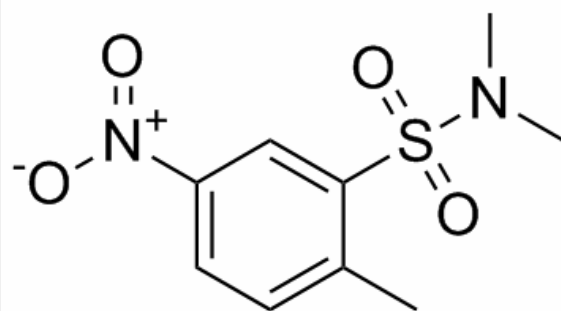
244.27

## Product Description

BRL-50481 is a novel and selective inhibitor of **PDE7** with **IC<sub>50</sub>**s of 0.15, 12.1, 62 and 490  $\mu\text{M}$  for **PDE7A**, **PDE7B**, **PDE4** and **PDE3**, respectively.

IC50 & Target: IC50: 0.15  $\mu\text{M}$  (PDE7A), 12  $\mu\text{M}$  (PDE7B), 62  $\mu\text{M}$  (PDE4), 490  $\mu\text{M}$  (PDE3)<sup>[1]</sup>

**In Vitro:** BRL-50481 increases the cAMP content ( $19.1 \pm 6.2\%$  of IBMX response at 300  $\mu\text{M}$ ) but is considerably less potent. BRL-50481 (30  $\mu\text{M}$ ) fails to suppress proliferation by itself but significantly potentiates the effect of rolipram. BRL-50481 (30  $\mu\text{M}$ ) has no effect on IL-15-induced proliferation but augments the inhibitory effect of rolipram. Pretreatment (30 min) of human monocytes with BRL-50481 has, by itself, a negligible ( $\sim 2$  to 10%) inhibitory effect on TNF $\alpha$  output at all concentrations tested. BRL-50481 also potentiates the inhibitory effect of PGE<sub>2</sub> on LPS-induced TNF $\alpha$  release. BRL-50481 has no significant effect by itself on  $\kappa\text{B}$ -dependent transcription ( $5.6 \pm 1.9\%$  inhibition at 30  $\mu\text{M}$ ) and fails to enhance the effect of rolipram (maximum inhibition,  $52.9 \pm 2.7\%$ ; pIC<sub>30</sub> value of  $5.33 \pm 0.12$ ). BRL-50481 suppresses, in a concentration-dependent manner, LPS-induced TNF $\alpha$  release in monocytes in which PDE7A1 is induced ( $21.7 \pm 1.6\%$  inhibition at 30  $\mu\text{M}$  at the 12-h time point)<sup>[2]</sup>.



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