

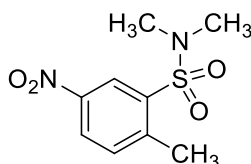
**Catalog # 10-1300**

**BRL-50481**

CAS# 433695-36-4

3-(N,N-Dimethylsulfonamido)-4-methylnitrobenzene

Lot # X101030



Potent and selective inhibitor of phosphodiesterase-7 (PDE7),  $K_i=180$  nM<sup>1</sup>. Induces apoptosis in chronic lymphocytic leukemia cells which express PDE7B<sup>2</sup>. Increases mineralization in osteoblasts differentiated from hMSC<sup>3</sup>. Cell permeable.

- 1) Smith *et al.* (2004), *Discovery of BRL 50481 [3-(N,N-dimethylsulfonamido)-4-methyl-nitrobenzene], a selective inhibitor of phosphodiesterase 7: in vitro studies in human monocytes, lung macrophages and CD8+ T-lymphocytes*; *Mol. Pharmacol.*, **66** 1679
- 2) Zhang *et al.* (2008), *Cyclic nucleotide phosphodiesterase profiling reveals increased expression of phosphodiesterase 7B in chronic lymphocytic leukemia*; *Proc. Natl. Acad. Sci. USA* **105** 19532
- 3) Pekkinen *et al.* (2008), *Effects of phosphodiesterase 7 inhibition by RNA interference on the gene expression and differentiation of human mesenchymal stem cell-derived osteoblasts*; *Bone*, **43** 84

**PHYSICAL DATA**

Molecular Weight:	244.27
Molecular Formula:	C <sub>9</sub> H <sub>12</sub> N <sub>2</sub> O <sub>4</sub> S
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 40 mg/ml) or Ethanol (up to 5 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at room temperature for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**