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**Product Data Sheet**


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Product Name: PCA50941

Cat. No.: GC32568

**Chemical Properties**

Cas. No. 136941-85-0

SMILES O=C(C1=C(C)NC(C)=C(C(OCC2CCCCO2)=O)C1C3=CC=CC([N+])([O-])=O)=C3)OCCN(C(C4=C5C=CC=C4)=O)S5(=O)=O

Formula  $C_{30}H_{31}N_3O_{10}S$  M.Wt 625.65

Solubility Soluble in DMSO Storage Store at  $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at  $37^{\circ}C$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}C$  for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

PCA50941 is a 1,4-dihydropyridine derivative, used for treatment for cardiovascular disease.

PCA50941 (1  $\mu M$ ) shifts the I-V relationship of whole-cell  $Ca^{2+}$  currents by about 5-10 mV towards more hyperpolarizing potentials. PCA50941 increases further the  $K(+)$ -evoked peak to 655 nM. In the presence of 5 mM  $Ca^{2+}$ , PCA50941 increases the  $[Ca^{2+}]$  peaks to 427 nM. PCA50941 potentiates the release of catecholamines from perfused bovine adrenal glands evoked by 30 s pulses of 17.7 mM  $K^{+}$  in a manner dependent on the  $[Ca^{2+}]_o$ [1].

PCA50941 (10-120  $\mu M$ ) by intracoronary injection, causes smaller reductions of coronary blood flow (CBF) in goats. PCA50941 (10-300  $\mu M/min$ ) does not modify CBF nor the other hemodynamic variables recorded by i.v. infusions in 4 goats. Intravenous infusion of PCA50941 (100 microg/min) reverses the hemodynamic variables from the shock state to control values within 20 min in 5 of 6 animals[2].

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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[1]. Montiel C, et al. Interactions between Ca<sup>2+</sup>, PCA50941 and Bay K 8644 in bovine chromaffin cells. Eur J Pharmacol. 1994 Aug 16;268(3):293-303. [2]. Fernández N, et al. PCA50941, a new 1,4-dihydropyridine, reverses endothelin-induced cardiogenic shock in the anesthetized goat. Life Sci. 1998;62(21):1933-42.

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