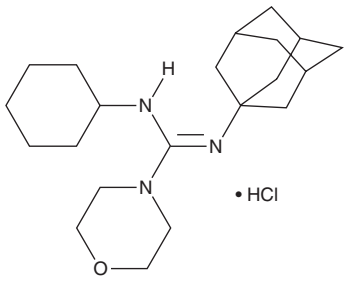
PRODUCT INFORMATION

PNU 37883 (hydrochloride)

Item No. 44821

CAS Registry No.:	57568-80-6
Formal Name:	N-cyclohexyl-N′-tricyclo[3.3.1.1]dec-1-yl-4-morpholinecarboximidamide, monohydrochloride
Synonyms:	PNU 37883A, U-37883A
MF:	$C_{21}H_{35}N_3O$ • HCl
FW:	382.0
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

PNU 37883 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the PNU 37883 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. PNU 37883 (hydrochloride) is slightly soluble (0.1-1 mg/ml) in ethanol.

Description

PNU 37883 is an inhibitor of ATP-sensitive potassium (K_{ATP}) channels.[1] It inhibits sulfonylurea receptor 2B (SUR2B) linked to ATP-sensitive potassium channel $K_{ir}6.2$ (SUR2B/$K_{ir}6.2$) and SUR2B/$K_{ir}6.1$ (IC_{50}s = 15.2 and 6 µM, respectively) and SUR1/$K_{ir}6.2$ and SUR2A/$K_{ir}6.2$ to a lesser extent at 100 µM. PNU 37883 (0.1 and 0.3 µM) inhibits relaxation of isolated rat middle meningeal arteries induced by pinacidil (Item No. 15416), levcromakalim, or P1075 (Item No. 21849).[2] It increases kallikrein secretion from microdissected connecting tubules isolated from normotensive and spontaneously hypertensive rats.[3] PNU 37883 (15 mg/kg) increases sodium excretion and does not affect potassium excretion or glomerular filtration rate in saline-loaded rats.[4]

References

1. Cui, Y., Tinker, A., and Clapp, L.H. Different molecular sites of action for the K_{ATP} channel inhibitors, PNU-99963 and PNU-37883A. *Br. J. Pharmacol.* **139(1)**, 122-128 (2003).
2. Ploug, K.B., Boni, L.J., Baun, M., *et al.* K_{ATP} channel expression and pharmacological *in vivo* and *in vitro* studies of the K_{ATP} channel blocker PNU-37883A in rat middle meningeal arteries. *Br. J. Pharmacol.* **154(1)**, 72-81 (2008).
3. Yamanaka, M., Hayashi, I., Fujita, T., *et al.* Potassium-induced increase in renal kallikrein secretion is attenuated in dissected renal connecting tubules of young spontaneously hypertensive rats. *Int. Immunopharmacol.* **2(12-14)**, 1957-1964 (2002).
4. Ludens, J.H., Clark, M.A., and Lawson, J.A. Effects of a K^+ channel blocker on glomerular filtration rate and electrolyte excretion in conscious rats. *J. Pharmacol. Exp. Ther.* **273(3)**, 1375-1381 (1995).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM