SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

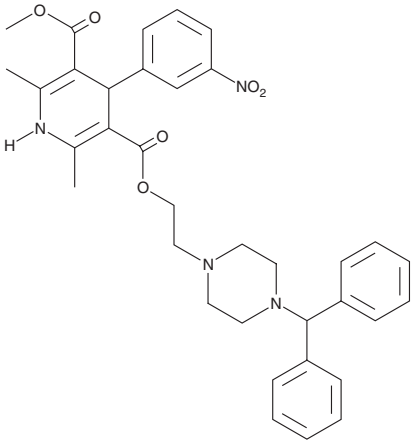
www.szabo-scandic.com

linkedin.com/company/szaboscandic

PRODUCT INFORMATION

Manidipine

Item No. 23614



CAS Registry No.:	89226-50-6
Formal Name:	1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3-[2-[4-(diphenylmethyl)-1-piperazinyl]ethyl] 5-methyl ester 3,5-pyridinedicarboxylic acid
Synonyms:	CV-4093, Franidipine, (±)-Manidipine
MF:	$C_{35}H_{38}N_4O_6$
FW:	610.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 230, 348 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years

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

Laboratory Procedures

Manidipine is supplied as a crystalline solid. A stock solution may be made by dissolving the manidipine in the solvent of choice. Manidipine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of manidipine in ethanol is approximately 15 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Manidipine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, manidipine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Manidipine has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Manidipine is a dihydropyridine L- and T-type calcium channel blocker.[1-3] It blocks recombinant rabbit L-type ($\alpha_{1C}\alpha_2/\delta\beta_{1a}$) and human T-type ($\alpha_{1H}$) calcium channels expressed in *Xenopus* oocytes and native L-type channels in dissociated guinea pig cardiac ventricular cells (IC_{50} = 2.6 nM). Manidipine inhibits intracellular calcium increases induced by endothelin-1 (ET-1; Item No. 24127) in A_7r_5 rat vascular smooth muscle cells (ED_{50} = 1 nM) and potassium-induced contraction of isolated dog femoral and portal veins (IC_{50}s = 24 and 2.1 nM, respectively).[4,5] *In vivo*, it lowers blood pressure in spontaneously hypertensive rats (SHRs) when administered at a dose of 10 mg/kg and inhibits left ventricular hypertrophy in rats induced by isoproterenol (Item No. 15592) when administered at a dose of 3 mg/kg.[6,7] Formulations containing manidipine have been used in the treatment of hypertension.

References

1. Furukawa, T., Nukada, T., Miura, R., *et al. J. Cardiovasc. Pharmacol.* **45(3)**, 241-246 (2005).
2. Furukawa, T., Nukada, T., Namiki, Y., *et al. Eur. J. Pharmacol.* **613(1-3)**, 100-107 (2009).
3. Tohse, N., Takeda, Y., and Kanno, M. *Eur. J. Pharmacol.* **249(2)**, 231-233 (1993).
4. Huang, S., Simonson, M.S., and Dunn, M.J. *Am. Heart J.* **125(2 Pt 2)**, 589-597 (1993).
5. Shibouta, Y., Kitayoshi, T., Kitoh, G., *et al. Jpn. J. Pharmacol.* **48(4)**, 463-472 (1988).
6. Meguro, K., Aizawa, M., Sohda, T., *et al. Chem. Pharm. Bull. (Tokyo)* **33(9)**, 3787-3797 (1985).
7. Yoshiyama, M., Takeuchi, K., Kim, S., *et al. Jpn. Circ. J.* **62(1)**, 47-52 (1998).

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