
Product Data Sheet

Product Name: Manidipine
 Cat. No.: GC17587

Chemical Properties

Cas. No. 89226-50-6

Chemical Name 5-O-[2-(4-benzhydrylpiperazin-1-yl)ethyl] 3-O-methyl 2,6-dimethyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3,5-dicarboxylate

SMILES CC1=C(C(C(=C(N1)C)C(=O)OCCN2CCN(CC2)C(C3=CC=CC=C3)C4=CC=CC=C4)C5=CC(=CC=C5)[N+](=O)[O-])C(=O)OC

Formula $C_{35}H_{38}N_4O_6$ M.Wt 610.7

Solubility $\geq 61.1\text{mg/mL}$ in DMSO Storage Store at -20°C

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

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

Structure

Background

Manidipine is a calcium channel blocker that is used clinically as an antihypertensive. Target: Calcium Channel. Manidipine is a dihydropyridine calcium antagonist, which causes systemic vasodilation by inhibiting the voltage-dependent calcium inward currents in smooth muscle cells. Manidipine was well tolerated in clinical trials, with most adverse effects related to vasodilation [1]. Manidipine is a lipophilic, third-generation dihydropyridine calcium channel antagonist with a high degree of selectivity for the vasculature, thereby inducing marked peripheral vasodilation with negligible cardiodepression. Manidipine represents a first-line treatment option for patients with essential mild-to-moderate hypertension [2]. Manidipine has neutral effects on glucose and lipid metabolism and is generally well tolerated. Manidipine thus represents a first-line option for lowering BP in patients with mild-to-moderate hypertension [3].

References:

- [1]. Cheer, S.M. and K. McClellan, Manidipine: a review of its use in hypertension. *Drugs*, 2001. 61(12): p. 1777-99.
- [2]. McKeage, K. and L.J. Scott, Manidipine: a review of its use in the management of hypertension. *Drugs*, 2004. 64(17): p. 1923-40.
- [3]. Roca-Cusachs, A. and F. Triposkiadis, Antihypertensive effect of manidipine. *Drugs*, 2005. 65 Suppl 2: p. 11-9.

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

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