

Product Data Sheet

Product Name: Aranidipine (MPC1304)

Cat. No.: GC34049

Chemical Properties

Cas. No. 86780-90-7

SMILES O=C(C1=C(C)NC(C)=C(C(OCC(C)=O)=O)C1C2=CC=CC=C2[N+](O-)=O)OC

Formula $C_{19}H_{20}N_2O_7$ M.Wt 388.37

Solubility DMSO : 125 mg/mL (321.86 mM) Storage Store at -20°C, unstable in solution, ready to use.

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

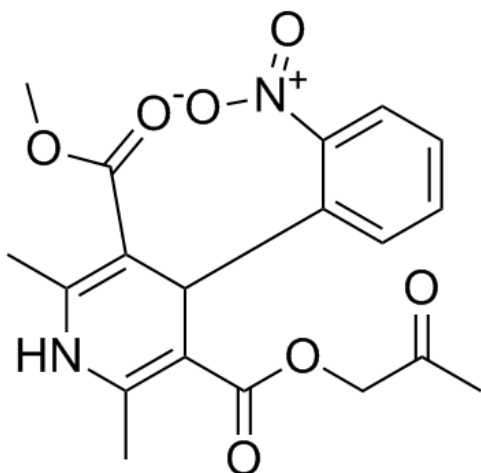
Caution: Product has not been fully validated for medical applications. For research use only.

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

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Structure



Protocol

Animal experiment:

Rats[1]Male SHR (11-15 weeks) are used. They are fasted for 16 h before the administration of drugs, and given Aranidipine (3, 10 mg/kg) orally through a gastric tube. Control animals are given the vehicle. At 1-24 h after drug administration, the SHR are killed by bleeding from the descending aorta under light anesthesia with ethyl ether, and the myocardium and brain are perfused with 0.9% saline from the aorta. Then, both tissues are removed, and blood vessels are trimmed away. Plasma from rat blood is isolated by centrifugation, and stored at -80°C until the concentration of Aranidipine is determined.

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References:

[1]. Nozawa Y, et al. Receptor occupation and pharmacokinetics of MPC-1304, a new Ca²⁺ channel antagonist, in spontaneously hypertensive rats. Eur J Pharmacol. 1995 Dec 12;287(2):191-6.

Background

Aranidipine (MPC1304) is a Ca²⁺ channel antagonist with potent and long-lasting antihypertensive effects.

Aranidipine (MPC-1304) is a new Ca²⁺ channel antagonist in spontaneously hypertensive rats. Following oral administration of Aranidipine at doses of 3 and 10 mg/kg to spontaneously hypertensive rats (SHR), there are significant decreases in B_{max} values for specific [3H](+)-PN 200-110 binding to myocardial membranes compared to the control values. The B_{max} values at 1 h (3 mg/kg), 1 and 6 h (10 mg/kg) are significantly decreased (47.7, 48.9 and 25.8%, respectively) compared to the control values. The effect is greatest at 1 h and decreases with time. The B_{max} values at 6 h (3 mg/kg) and 12 or 24 h (10 mg/kg) after the oral administration of Aranidipine are not significantly different from the control values, suggesting the disappearance of the effect of Aranidipine. The K_d values for myocardial [3H](+)-PN 200-110 binding are unaltered by oral administration of Aranidipine[1].

[1]. Nozawa Y, et al. Receptor occupation and pharmacokinetics of MPC-1304, a new Ca²⁺ channel antagonist, in spontaneously hypertensive rats. Eur J Pharmacol. 1995 Dec 12;287(2):191-6.

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