

PRODUCT INFORMATION



Clevidipine-d₇ Item No. 31979

CAS Registry No.: 2747918-66-5
Formal Name: 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylic acid, 3-methyl 5-[(1-oxobutoxy-d₇)methyl] ester

Synonym: *rac*-Clevidipine-d₇

MF: C₂₁H₁₆Cl₂D₇NO₆

FW: 463.4

Chemical Purity: ≥98% (Clevidipine)

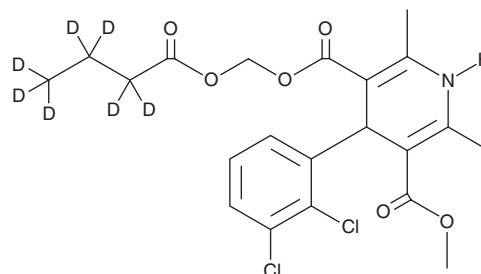
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₇); ≤1% d₀

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

Clevidipine-d₇ is intended for use as an internal standard for the quantification of clevidipine (Item No. 23025) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Clevidipine-d₇ is supplied as a solid. A stock solution may be made by dissolving the clevidipine-d₇ in the solvent of choice, which should be purged with an inert gas. Clevidipine-d₇ is soluble in methanol and DMSO.

Description

Clevidipine is an inhibitor of L-type calcium channels (IC₅₀s = 7.1 and 78.8 nM at -40 and -80 mV, respectively, in isolated guinea pig cardiomyocytes).¹ It preferentially inhibits L-type calcium channels in isolated rat portal vein over rat left ventricle (IC₅₀s = 427 and 20,417 nM, respectively).² Clevidipine decreases mean arterial pressure in anesthetized normotensive or spontaneously hypertensive rats with ED₃₀ values of 316 and 58 nmol/kg, respectively. Formulations containing clevidipine have been used in the treatment of hypertension.

References

1. Yi, X., Vivien, B., and Lynch, C., III Clevidipine blockade of L-type Ca²⁺ currents: Steady-state and kinetic electrophysiological studies in guinea pig ventricular myocytes. *J. Cardiovasc. Pharmacol.* **36**(5), 592-600 (2000).
2. Norlander, M., Sjöquist, P.O., Ericsson, H., et al. Pharmacodynamic, pharmacokinetic and clinical effects of clevidipine, an ultrashort-acting calcium antagonist for rapid blood pressure control. *Cardiovasc. Drugs Ther.* **22**(3), 227-250 (2004).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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