

Product Data Sheet

Product Name: Cilostazol-d₄

Cat. No.: GC47088

Chemical Properties

Cas. No. 1215541-47-1

SMILES O=C(N1)CCC2=C1C=CC(OCCCCC3=NN=NN3C4C([2H])([2H])CCCC4([2H])[2H])=C2

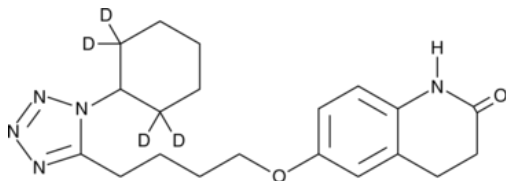
Formula C₂₀H₂₃D₄N₅O₂ M.Wt 373.5

Solubility DMSO: Slightly soluble, Methanol: Slightly soluble
Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips 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 Condition blue ice upon request.

Structure



Background

Cilostazol-d₄ is intended for use as an internal standard for the quantification of cilostazol by GC- or LC-MS. Cilostazol is a phosphodiesterase 3A (PDE3A) inhibitor (IC₅₀ = 0.2 μM for the platelet enzyme).¹ It is selective for PDE3A over PDE1, -2, -4, and 5 (IC₅₀s = >5 μM for all). Cilostazol inhibits collagen- or ADP-induced aggregation of isolated rabbit platelets (IC₅₀s = 29 and 31 μM, respectively).² *In vivo*, cilostazol (30 mg/kg) reduces thrombus formation by 84% in a mouse model of pulmonary thromboembolism. It reduces cardiac fibrosis and prevents the development of diastolic dysfunction and cardiac hypertrophy induced by a high-fat diet and angiotensin II in mice.³ Formulations containing cilostazol have been used in the treatment of the symptoms of intermittent claudication in peripheral vascular disease.

1. Schrör, K. The pharmacology of cilostazol Diabetes Obes. Metab. 4 (Suppl 2) S14-S19 (2002)

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

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2.Koga, Y., Kihara, Y., Okada, M., et al.2(1H)-Quinolinone derivatives as novel anti-arteriostenotic agents showing anti-thrombotic and anti-hyperplastic activitiesBioorg. Med. Chem. Lett.8(12)1471-1476(1998) 3.Reddy, S.S., Agarwal, H., and Barthwal, M.K.Cilostazol ameliorates heart failure with preserved ejection fraction and diastolic dysfunction in obese and non-obese hypertensive miceJ. Mol. Cell. Cardiol.12346-57(2018)

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