

Product Data Sheet

Product Name: Milrinone-d3

Cat. No.: GC40231

Chemical Properties

Cas. No. 2749393-50-6

SMILES O=C(C(C#N)=C1)NC(C([2H])([2H])[2H])=C1C2=CC=NC=C2

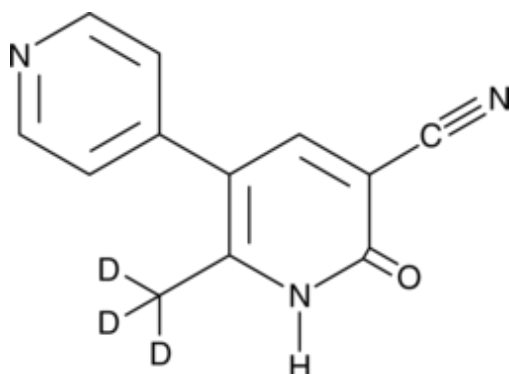
Formula C₁₂H₆D₃N₃O M.Wt 214.2

Solubility DMF: 0.3 mg/ml, DMSO: 0.5 mg/ml Storage Store at -20°C

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.

Structure



Background

Milrinone-d3 is intended for use as an internal standard for the quantification of milrinone by GC- or LC-MS. Milrinone is an inhibitor of type 3 phosphodiesterases (PDEs), inhibiting recombinant PDE3A and PDE3B with IC₅₀ values of 0.45 and 1 μM, respectively. It is selective for PDE3 over PDE1, PDE2, PDE4, PDE5, and PDE7 (IC₅₀s = 263, >300, 17.5, 49.1, and 58.3 μM, respectively). Milrinone (0.1-1 mg/kg) has positive inotropic effects, increasing cardiac contractile force in anesthetized dogs with a concomitant increase in heart rate but not blood pressure. It also increases contractile force in

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

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models of propranolol- and verapamil-induced heart failure in anesthetized dogs when administered at an initial dose of 30 µg/kg followed by a continuous 3 µg/kg per minute infusion. Milrinone has vasodilatory effects as well, decreasing mean aortic pressure and increasing venous compliance in anesthetized dogs when administered at an initial dose of 10 µg/kg followed by a continuous 1.7-2.4 µg/kg per minute infusion. Formulations containing milrinone have been used in the treatment of heart failure.

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