

Product Data Sheet

Product Name: (±)-Propranolol-d7

Cat. No.: GC46307

Chemical Properties

Cas. No. 344298-99-3

SMILES OC(CNC(C)C)COC1=C2C(C([2H])=C([2H])C([2H])=C2[2H])=C([2H])C([2H])=C1[2H]

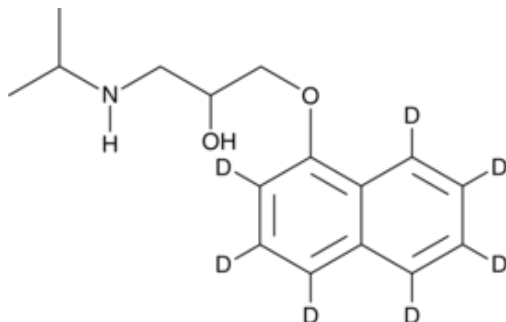
Formula C16H14D7NO2 M.Wt 266.4

Solubility DMF: 50 mg/ml, DMSO: 30 mg/ml, Ethanol: 30 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

(±)-Propranolol-d7 is intended for use as an internal standard for the quantification of propranolol by GC- or LC-MS. (±)-Propranolol is a β -adrenergic receptor (β -AR) antagonist (K_D s = 6.91, 0.832, and 117.49 nM for human β_1 -, β_2 -, and β_3 -ARs, respectively).¹ It reduces mean blood pressure, resting heart rate, and contractility and increases AV conduction time in dogs.² (±)-Propranolol restores normal sinus rhythm in dogs with ouabain-induced arrhythmias (ED_{50} = 3.8 mg/kg).³ It also acts as a non-specific serotonin receptor antagonist, reducing tranlylcypromine/L-tryptophan-induced hyperactivity in rats.⁴ Formulations containing (±)-propranolol have been used for the treatment of

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

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hypertension, angina pectoris, and cardiac ischemia.

1.Baker, J.G.The selectivity of β -adrenoceptor antagonists at the human β_1 , β_2 and β_3 adrenoceptorsBr. J. Pharmacol.144(3)317-322(2005) 2.Fitzgerald, J.D., and O'Donnell, S.R.A comparison of the haemodynamic effects of propranolol, 4-hydroxypropranolol and practolol in anaesthetized dogsBrit. J. Pharmacol.45(2)207-217(1972) 3.Basil, B., Jordan, R., Loveless, A.H., et al.A comparison of the experimental anti-arrhythmic properties of acebutolol (M and B 17,803), propranolol and practololBr. J. Pharmacol.50(3)323-333(1974) 4.Costain, D.W., and Green, A.R. β -Adrenoceptor antagonists inhibit the behavioural responses of rats to increased brain 5-hydroxytryptamineBr. J. Pharmacol.64(2)193-200(1978)

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