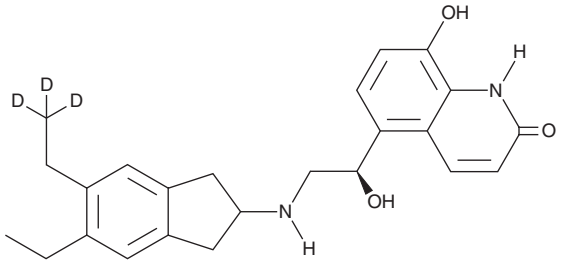
PRODUCT INFORMATION

Indacaterol-d_3

Item No. 28886

CAS Registry No.: 2699828-16-3
Formal Name: 5-((1R)-2-((5-ethyl-6-(ethyl-2,2,2-d3)-2,3-dihydro-1H-inden-2-yl)amino)-1-hydroxyethyl)-8-hydroxy 2(1H)-quinolinone
MF: $C_{24}H_{25}D_3N_2O_3$
FW: 395.5
Chemical Purity: ≥98% (Indacaterol)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_3); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Indacaterol-d_3 is intended for use as an internal standard for the quantification of indacaterol (Item No. 20070) 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).

Indacaterol-d_3 is supplied as a solid. A stock solution may be made by dissolving the indacaterol-d_3 in the solvent of choice, which should be purged with an inert gas. Indacaterol-d_3 is soluble in methanol and DMSO.

Description

Indacaterol is a long-acting and selective β_2-adrenergic receptor (β_2-AR) agonist (EC_{50} = 8.71 nM for increasing intracellular cAMP levels *in vitro*).[1] It is selective for β_2-ARs over β_1- and β_3-ARs (K_is = 43.6, 616.6, and 3,311.3 nM, respectively). Indacaterol inhibits bronchoconstriction induced by serotonin (5-HT; Item No. 14332) in conscious guinea pigs with a maximal effect of 85% when administered intratracheally at a dose of 6.7 µg/kg. It also inhibits bronchoconstriction induced by methacholine (Item No. 23092) in rhesus monkeys with a maximal effect of 75% when administered *via* nebulization at a dose of 12.5 mg/kg. Formulations containing indacaterol have been used alone, and in combination with glycopyrrolate, in the treatment of chronic obstructive pulmonary disease.

Reference

1. Battram, C., Charlton, S.J., Cuenoud, B., *et al. In vitro* and *in vivo* pharmacological characterization of 5-[(R)-2-(5,6-diethyl-indan-2-ylamino)-1-hydroxy-ethyl]-8-hydroxy-1H-quinolin-2-one (indacaterol), a novel inhaled β_2 adrenoceptor agonist with a 24-h duration of action. *J. Pharmacol. Exp. Ther.* **317(2)**, 762-770 (2006).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM