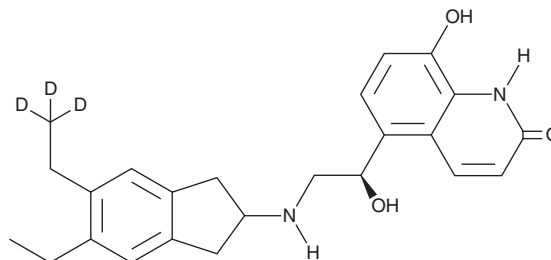


# PRODUCT INFORMATION



## Indacaterol-d<sub>3</sub> Item No. 28886

**CAS Registry No.:** 2699828-16-3  
**Formal Name:** 5-((1R)-2-((5-ethyl-6-(ethyl-2,2,2-d<sub>3</sub>)-2,3-dihydro-1H-inden-2-yl)amino)-1-hydroxyethyl)-8-hydroxy 2(1H)-quinolinone  
**MF:** C<sub>24</sub>H<sub>25</sub>D<sub>3</sub>N<sub>2</sub>O<sub>3</sub>  
**FW:** 395.5  
**Chemical Purity:** ≥98% (Indacaterol)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>3</sub>); ≤1% d<sub>0</sub>  
**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<sub>3</sub> 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<sub>3</sub> is supplied as a solid. A stock solution may be made by dissolving the indacaterol-d<sub>3</sub> in the solvent of choice, which should be purged with an inert gas. Indacaterol-d<sub>3</sub> is soluble in methanol and DMSO.

### Description

Indacaterol is a long-acting and selective  $\beta_2$ -adrenergic receptor ( $\beta_2$ -AR) agonist ( $EC_{50}$  = 8.71 nM for increasing intracellular cAMP levels *in vitro*).<sup>1</sup> It is selective for  $\beta_2$ -ARs over  $\beta_1$ - and  $\beta_3$ -ARs ( $K_{i}$ s = 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  $\mu$ g/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  $\beta_2$  adrenoceptor agonist with a 24-h duration of action. *J. Pharmacol. Exp. Ther.* **317**(2), 762-770 (2006).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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