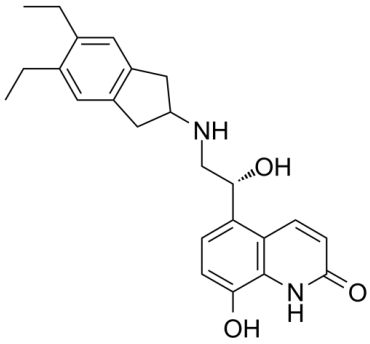
Data Sheet

Product Name:	Indacaterol
Cat. No.:	CS-0744
CAS No.:	312753-06-3
Molecular Formula:	C24H28N2O3
Molecular Weight:	392.49
Target:	Adrenergic Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	DMSO : 83.33 mg/mL (212.31 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Indacaterol(Onbrez; Arcapta) is an ultra-long-acting β-adrenoceptor agonist. IC50 value: Target: β-adrenoceptor Indacaterol inhibits cAMP production in Chinese hamster ovary cells stably transfected with human β2 adrenoceptors with pEC50 of 8.06. Indacaterol inhibits electrically induced contraction on the electrically stimulated guinea pig trachea in a concentration-dependent manner with pEC50 of 8.23. Indacaterol induces a concentration-dependent inotropic effect with maximal efficacy of 75% in the isolated guinea pig left atrium [1]. Indacaterol reverses the carbachol-induced contraction in a concentration-dependent manner with IC50 of 37 nM in human small airways. Indacaterol concentration dependently reverses the serotonin-induced contraction with IC50 of 10.5 nM in rat small airways. Indacaterol has the highest intrinsic efficacy of 53% in rat small airways and 73% in human small airways [2]. Indacaterol (6.7 μg/kg) inhibits 5-HT-induced bronchoconstriction with a maximal effect of 85% in the conscious guinea pig. Indacaterol (12.5 μg/kg) dose-dependently inhibits methacholine-induced bronchoconstriction with a maximal effect of 85% in the anesthetized rhesus monkey [1].

References:

[1]. Battram, C., 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-o ne (indacaterol), a novel inhaled beta(2) adrenoceptor agonist with a 24-h duration of action. J Pharmacol Exp Ther, 2006. 317(2): p. 762-70.

[2]. Sturton, R.G., et al., Pharmacological characterization of indacaterol, a novel once daily inhaled 2 adrenoceptor agonist, on small airways in human and rat precision-cut lung slices. J Pharmacol Exp Ther, 2008. 324(1): p. 270-5.

CAIndexNames:

2(1H)-Quinolinone, 5-[(1R)-2-[(5,6-diethyl-2,3-dihydro-1H-inden-2-yl)amino]-1-hydroxyethyl]-8-hydroxy-

SMILES:

OC1=CC=C([C@@H](O)CNC2CC(C=C(CC)C(CC)=C3)=C3C2)C4=C1NC(C=C4)=O

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA