Product Datasheet

Olodaterol (orb1223805)

Catalog Number	orb1223805
Category	Small Molecules
Description	A potent, selective long-acting β2 adrenoceptor agonist with EC50 of 1.4 nM for hβ2; shows >250 fold selectivity over hβ1; exerts a bronchodilatory efficacy over 24 h in dogs and guinea pigs in the absence of systemic pharmacodynamic effects.COPD Phase 3 Clinical(In Vitro):Olodaterol (0.001~10 nM; fibroblasts) attenuates growth factor-induced motility and proliferation.Olodaterol (0.1~10 nM; fibroblasts) interferes with FGF-induced phosphorylation of signalling cascades.Olodaterol (0.001~1000 nM; 30 minutes; fibroblasts) increases intracellular cAMP in a concentration-dependent manner. Olodaterol (0~10 nM; 30 minutes; fibroblasts) concentration-dependently inhibits the PICP increase with maximal efficacy of 70 % at 10 nM. Olodaterol has a subnanomolar affinity for the β2-AR (pKi=9.14) and is selective for this receptorin comparison with the β1-AR and β3-AR subtypes.(In Vivo):Olodaterol (1 mg/kg; inhal.; 21 days) accelerats body weight recovery back to control levels (at day 21) and attenuats TGF-β-induced lung fibrosis.Olodaterol (0.1~3 μg/kg; inhal.; 5 hours) induces a dose-dependent bronchoprotection.Olodaterol (0.3 and 0.6 μg/kg; inhal.; 24 hours) induces a maximal bronchoprotection of approximately 60 % after 0.5 hours.
Target	Adrenergic Receptor
Purity	>98% (HPLC)
MW	386.4415
Target Areas	β2-adrenoceptor
Solubility (25°C)	H2O: 6.2 mg/mL
CAS Number	868049-49-4
Formula	$C_{21}H_{26}N_2O_5$

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SMILES	CC(C)(CC1=CC=C(C=C1)OC)NCC(C2=C3C(=CC(=C2)O)NC(=O)CO3)O
Chemical Name	2H-1,4-Benzoxazin-3(4H)-one, 6-hydroxy-8-[(1R)-1-hydroxy-2-[[2-(4-methoxyphenyl)-1,1-dimethylethyl]amino]ethyl]-
Storage	Storage temperature: -20°C. Stability: ≥ 2 years
Note	For research use only
Expiration Date	12 months from date of receipt.

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