HOKU-81

Cat. No.: HY-50291

CAS No.: 58020-43-2

Molecular Formula: $C_{12}H_{18}ClNO_2$

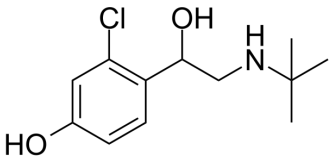
Molecular Weight: 243.73

Target: Adrenergic Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (205.15 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	4.1029 mL	20.5145 mL	41.0290 mL
	5 mM	0.8206 mL	4.1029 mL	8.2058 mL
	10 mM	0.4103 mL	2.0515 mL	4.1029 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (10.26 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.26 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.26 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

HOKU-81 (4-Hydroxytulobuterol) is one of the metabolites of Tulobuterol (HY-B1810). HOKU-81 is a potent and selective β2-adrenoceptor stimulant. HOKU-81 has bronchodilating effect[1][2].

IC_{50} & Target

Beta-2 adrenergic receptor

In Vitro

HOKU-81 (4-Hydroxytulobuterol) is approximately 8 times more potent than tulobuterol, approximately twice as potent as salbutamol, and approximately as potent as isoprenaline in relaxing effect on the isolated tracheal smooth muscle

preparation of guinea pigs[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Kubo S, Matsubara I, Yamazaki M et al. Pharmacological studies of 1-(2-chloro-4-hydroxyphenyl)-2-t-butylaminoethanol (HOKU-81), a new bronchodilator. 1st Communication: Bronchodilator and cardiovascular actions. Arzneimittelforschung. 1980;30(8):1272-8.

[2]. Gomi Y, Shirahase H, Funato H. Effects of 1-(2-chloro-4-hydroxyphenyl)-t-butylaminoethanol (HOKU-81), a new bronchodilator, on isolated trachea and atria of guinea pig. Jpn J Pharmacol. 1979 Aug;29(4):515-24.

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