LY377604

Cat. No.: HY-13713

CAS No.: 204592-94-9

Molecular Formula: $C_{31}H_{32}N_4O_4$

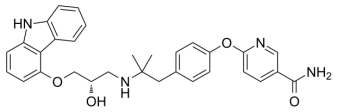
Molecular Weight: 524.61

Target: Adrenergic Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (190.62 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9062 mL	9.5309 mL	19.0618 mL
	5 mM	0.3812 mL	1.9062 mL	3.8124 mL
	10 mM	0.1906 mL	0.9531 mL	1.9062 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 (4.77 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (4.77 mM); Clear solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2.5 mg/mL (4.77 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

LY377604 is a human β_3-adrenergic receptor agonist with an EC_{50} of 2.4 nM and also a β_1- and β_2-adrenergic receptor antagonist.

IC_{50} & Target

EC50: 2.4 nM (human β_3-adrenergic receptor)[1]
β_1-adrenergic receptor, β_2-adrenergic receptor[1]

In Vitro

LY377604 is a human β_3-adrenergic receptor agonist with an EC_{50} of 2.4 nM and also a β_1- and β_2-adrenergic receptor antagonist. LY377604 causes a maximal increase in cyclic adenosine monophosphate (cAMP) levels, but does not stimulate

	cAMP accumulation in CHO cells transfected with either the human β_1 adrenergic receptor or the human β_2 adrenergic receptor[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Administration of LY377604 to male Long-Evans rats fed a caloric dense diet results in stimulation of lipid utilization. This is observed as a decrease in respiratory quotient and persists for about 4 h before returning to that measured from vehicle-treated rats[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jesudason CD, et al. Combination of a Beta adrenoceptor modulator and a norepinephrine-serotonin uptake inhibitor for the treatment of obesity. ACS Med Chem Lett. 2011 May 23;2(8):583-6.

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