Beraprost sodium

Cat. No.: HY-13569A

CAS No.: 496807-11-5

Molecular Formula: $C_{24}H_{29}NaO_5$

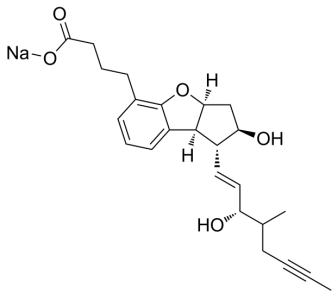
Molecular Weight: 420.48

Target: Prostaglandin Receptor

Pathway: GPCR/G Protein

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (297.28 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3782 mL	11.8912 mL	23.7823 mL
	5 mM	0.4756 mL	2.3782 mL	4.7565 mL
	10 mM	0.2378 mL	1.1891 mL	2.3782 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: ≥ 2.08 mg/mL (4.95 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.95 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Beraprost sodium, a prostacyclin analog, is a stable and orally active proagent of PGI2. Beraprost sodium is a potent vasodilator, has the potential for pulmonary arterial hypertension treatment through expanding renal vessels, improving microcirculation[1]. Beraprost (sodium) is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.

IC_{50} & Target

IP

In Vitro

Beraprost sodium (0.1, 1.0, and 10.0 μM; 24 hours) treatment leads to a significant increase in the number of tube formation, BPS plays an important role on angiogenic activity[1]. Beraprost sodium (0.1, 1.0, and 10.0 μM; 24 hours) treatment let VE-

cadherin at regions of cell–cell contact becomes more abundant and the morphology of endothelial cells tends to be normal compared with those cultured under hypoxia conditions[1].

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

In Vivo

Beraprost sodium (oral adminstration; 0.6 mg/kg; once daily; 3 or 7 days) can mitigate the development of renal interstitial fibrosis, decrease renal oxidative stress through its potential vasodilation effect, and further prevent renal interstitial fibrosis [1].

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

Animal Model:	6-8-week-old C57Bl/6J Male Mice[1]
Dosage:	0.6 mg/kg
Administration:	Oral adminstration; 0.6 mg/kg; once daily; 3 or 7 days
Result:	Mitigated the development of renal interstitial fibrosis.

REFERENCES

[1]. Li S, et al. Beraprost sodium mitigates renal interstitial fibrosis through repairing renal microvessels.J Mol Med (Berl). 2019 Jun;97(6):777-791.

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