# BAY 73-1449

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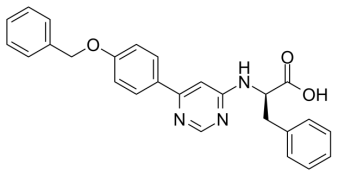
| **Cat. No.:** | HY-118941 |
| **CAS No.:** | 693790-96-4 |
| **Molecular Formula:** | $C_{26}H_{23}N_3O_3$ |
| **Molecular Weight:** | 425.48 |
| **Target:** | Prostaglandin Receptor |
| **Pathway:** | GPCR/G Protein |
| **Storage:** | Powder -20°C 3 years<br>In solvent -80°C 6 months<br>-20°C 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 250 mg/mL (587.57 mM; Need ultrasonic)

| Preparing Stock Solutions | Mass / Solvent / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.3503 mL | 11.7514 mL | 23.5029 mL |
| | 5 mM | 0.4701 mL | 2.3503 mL | 4.7006 mL |
| | 10 mM | 0.2350 mL | 1.1751 mL | 2.3503 mL |

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

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.08 mg/mL (4.89 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.89 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

BAY 73-1449 is a selective antagonist of prostacyclin receptor (IP), with high potency ($IC_{50}$ of less than 0.1 nM) in cAMP assays in Human HEL cells and rat DRG. BAY 73-1449 can be used in the research of lowering blood pressure[1].

**$IC_{50}$ & Target**

IP Receptor
<0.1 nM ($IC_{50}$)

**In Vivo**

BAY 73-1449 (0.1-1 mg/kg; i.v.) does not significantly reduce mesenteric inflow, but significantly reduces splenic shunt vessel outflow in rats[1].
BAY 73-1449 (1-5 mg/kg, s.c. once daily for 7 d) has no effects on the degree of porto-systemic shunting in rats[1].
BAY 73-1449 (1 mg/kg, s.c. once daily for 7 d), has no effects on portal pressures in rats[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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| Animal Model: | Male Wistar rats (250-350 g) are ligated portal vein[1] |
| Dosage: | 0.1, 1 mg/kg |
| Administration: | A single i.v. |
| Result: | Significantly reduced shunt flow without affecting mesenteric flow. |

## REFERENCES

[1]. Bexis S, et, al. Vascular actions of the prostacyclin receptor antagonist BAY 73-1449 in the portal hypertensive rat. Eur J Pharmacol. 2008 Aug 20;590(1-3):322-6.



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