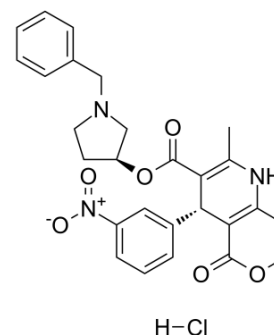


Barnidipine hydrochloride

| | |
|---------------------------|--|
| Cat. No.: | HY-107322 |
| CAS No.: | 104757-53-1 |
| Molecular Formula: | C ₂₇ H ₃₀ ClN ₃ O ₆ |
| Molecular Weight: | 528 |
| Target: | Calcium Channel |
| Pathway: | Membrane Transporter/Ion Channel; Neuronal Signaling |
| Storage: | 4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light) |



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (473.48 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent Concentration | Mass | | |
|---------------------------|-----------------------|-----------|-----------|------------|
| | | 1 mg | 5 mg | 10 mg |
| | 1 mM | 1.8939 mL | 9.4697 mL | 18.9394 mL |
| | 5 mM | 0.3788 mL | 1.8939 mL | 3.7879 mL |
| | 10 mM | 0.1894 mL | 0.9470 mL | 1.8939 mL |

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

In Vivo

- Add each solvent one by one: **10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline**
Solubility: ≥ 2.08 mg/mL (3.94 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
Solubility: ≥ 2.08 mg/mL (3.94 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Barnidipine hydrochloride (Mepirodipine hydrochloride) is an L-type calcium antagonist (CaA) with high affinity for [³H] initrendipine binding sites (K_i=0.21 nmol/l), has selective action against CaA receptors^[1]. Barnidipine hydrochloride (Mepirodipine hydrochloride) is an antihypertensive drug and acts by the reduction of peripheral vascular resistance secondary to its vasodilatory action^[2].

IC₅₀ & Target

Ki: 0.21 nmol/l ([³H] initrendipine)^[1]

REFERENCES

[1]. van Zwieten PA, et al. Pharmacological profile of barnidipine: a single optical isomer dihydropyridine calcium antagonist. Blood Press Suppl. 1998;1:5-8.

[2]. Malhotra HS, et al. Barnidipine. Drugs. 2001;61(7):989-96; discussion 997-8.

Caution: Product has not been fully validated for medical applications. For research use only.

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