Synephrine hydrochloride

Cat. No.: HY-N0132A

CAS No.: 5985-28-4

Molecular Formula: $C_9H_{14}ClNO_2$

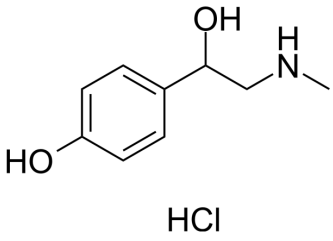
Molecular Weight: 203.67

Target: Adrenergic Receptor; Endogenous Metabolite

Pathway: GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease

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

H_2O : ≥ 100 mg/mL (490.99 mM)

DMSO : ≥ 52 mg/mL (255.31 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration / Solvent / Mass	1 mg	5 mg	10 mg
1 mM	4.9099 mL	24.5495 mL	49.0990 mL
5 mM	0.9820 mL	4.9099 mL	9.8198 mL
10 mM	0.4910 mL	2.4550 mL	4.9099 mL

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

BIOLOGICAL ACTIVITY

Description

Synephrine (Oxedrine) hydrochloride, an alkaloid, is an α-adrenergic and β-adrenergic agonist derived from the Citrus aurantium. Synephrine hydrochloride is a sympathomimetic compound and can be used for weight loss[1][2].

IC_{50} & Target

β adrenergic receptor

In Vivo

Synephrine (1 mg/kg; oral gavage; for 8 days; PVL and BDL rats) significantly ameliorates the hyperdynamic state in both PVL and BDL rats. The portal venous pressure in PVL and BDL rats, portal tributary blood flow and cardiac index are significantly reduced, while mean arterial pressure and systemic as well as portal territory vascular resistance are enhanced by treatment of Synephrine[2].

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

Animal Model:	Portal vein ligation (PVL) or bile duct ligation (BDL) rats[2]
Dosage:	1 mg/kg per 12 hours

Administration:	Oral gavage; for 8 days
Result:	The portal venous pressure in PVL and BDL rats, portal tributary blood flow and cardiac index were significantly reduced, while mean arterial pressure and systemic as well as portal territory vascular resistance were enhanced.

REFERENCES

[1]. Thomas JE, et al. STEMI in a 24-year-old man after use of a synephrine-containing dietary supplement: a case report and review of the literature. Tex Heart Inst J. 2009;36(6):586-90.

[2]. Huang YT, et al. Hemodynamic effects of synephrine treatment in portal hypertensive rats. Jpn J Pharmacol. 2001 Feb;85(2):183-8.

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