Indapamide

Cat. No.: HY-B0259

CAS No.: 26807-65-8

Molecular Formula: $C_{16}H_{16}ClN_3O_3S$

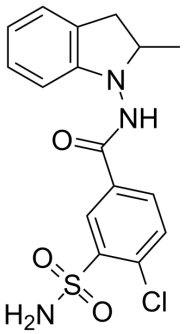
Molecular Weight: 365.83

Target: Potassium Channel

Pathway: Membrane Transporter/Ion Channel

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (273.35 mM)

H_2O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.7335 mL	13.6676 mL	27.3351 mL
5 mM	0.5467 mL	2.7335 mL	5.4670 mL
10 mM	0.2734 mL	1.3668 mL	2.7335 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 (6.83 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.83 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.83 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Indapamide is an orally active sulphonamide diuretic agent, that can reduce blood pressure by decreasing vascular reactivity and peripheral vascular resistance. Indapamide is also can reduce left ventricular hypertrophy[1][4].

In Vitro

Indapamide (0.1-500 mg/L; 20min) reduces total insulin secretory response to glucose infusions in isolated perfused rat pancreas[2].

	Indapamide (1-100 μM) increases osteoblast proliferation and decreased bone resorption[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Indapamide (1 mg/kg/d; gastric gavage for 8 weeks) lowers blood pressure in spontaneously hypertensive rats (SHRs)[4]. Indapamide (10 mg/kg/d) decreases pressor response to oxotremorine, noradrenaline, and tyramine in rats[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male spontaneously hypertensive rats (11 weeks)[4]
Dosage:	1 mg/kg
Administration:	Gastric gavage per day for 8 weeks
Result:	Decreased blood pressure by 16.9 mm Hg. Increased the dp/dt_{max}, ejection fraction (EF) and fractional shortening (FS).

REFERENCES

[1]. Chaffman, M, et, al. Indapamide. Drugs 28, 189–235 (1984).

[2]. Furman BL, et, al. A further examination of the possible effects of indapamide on glucose tolerance and insulin secretion in the rat and mouse. J Pharm Pharmacol. 1981 Nov;33(11):735-7.

[3]. Lalande A, et, al. Indapamide, a thiazide-like diuretic, decreases bone resorption in vitro. J Bone Miner Res. 2001 Feb;16(2):361-70.

[4]. Ma F, et, al. Indapamide lowers blood pressure by increasing production of epoxyeicosatrienoic acids in the kidney. Mol Pharmacol. 2013 Aug;84(2):286-95.

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