Heptaminol hydrochloride

Cat. No.: HY-B1231

CAS No.: 543-15-7

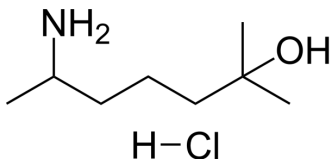
Molecular Formula: $C_8H_{20}ClNO$

Molecular Weight: 181.7

Target: Others

Pathway: Others

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 : ≥ 100 mg/mL (550.36 mM)
H_2O : ≥ 100 mg/mL (550.36 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	5.5036 mL	27.5179 mL	55.0358 mL
5 mM	1.1007 mL	5.5036 mL	11.0072 mL
10 mM	0.5504 mL	2.7518 mL	5.5036 mL

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

In Vivo

1. Add each solvent one by one: PBS
Solubility: 100 mg/mL (550.36 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Heptaminol (RP-2831) hydrochloride is a vasoconstrictor used in the study of hypotension, especially orthostatic hypotension. Heptaminol is also a skin cancer proliferation inhibitor that inhibits immune inflammation induced by the tumor promoting factor 12-O-tetradecanoylphorbol-13-acetate (TPA) in an NO-dependent manner. Heptaminol also acts as a sympathomimetic amine, exerting indirect sympathetic effects. Heptaminol is also an antagonist of catecholamine release and uptake and can increase intracellular free calcium levels[1][2][3].

In Vivo

Heptaminol hydrochloride (12 μL; 50% water/acetone) stimulates NO synthesis from constitutive NOS and attenuates TPA-induced depletion of NK cells at the edge of the mouse ear. Heptaminol hydrochloride exerts anti-proliferative and anti-inflammatory effects on TPA, suggesting important anti-tumor function[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Acute TPA-induced inflammatory ear skin changes in Balb/c mouse (5-7 wk)[2]
Dosage:	2.5 nmol Heptaminol in 12 μL
Administration:	Topical treatment for single dose; Heptaminol was dissolved in 50% water/acetone; 30 min before 0.4 nmol TPA (in 12 μL acetone) treatment.
Result:	Stimulated NO production and directly inhibits tumors caused by TPA promoting inflammation.

REFERENCES

[1]. Pourrias B, et al. Heptaminol chlorhydrate: new data. Ann Pharm Fr. 1991;49(3):127-138.

[2]. Reiter M. Die indirekt sympathicomimetische Wirkung von Heptaminol auf den Herzmuskel [Indirect sympathomimetic effect of heptaminol on heart muscle]. Naunyn Schmiedebergs Arch Pharmakol. 1970;267(2):114-22. German.

[3]. Chung JF, et al. NO-dependent attenuation of TPA-induced immunoinflammatory skin changes in Balb/c mice by pindolol, heptaminol or ATRA, but not by verapamil. Oncotarget. 2016 Jul 26;7(30):47576-47585.

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