Amrinone

Cat. No.: HY-B1294

CAS No.: 60719-84-8

Molecular Formula: $C_{10}H_9N_3O$

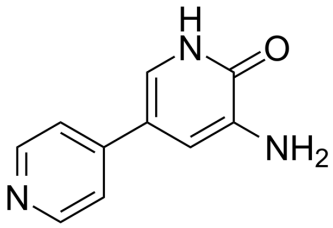
Molecular Weight: 187.2

Target: Phosphodiesterase (PDE)

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 16.67 mg/mL (89.05 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	5.3419 mL	26.7094 mL	53.4188 mL
5 mM	1.0684 mL	5.3419 mL	10.6838 mL
10 mM	0.5342 mL	2.6709 mL	5.3419 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: ≥ 1.67 mg/mL (8.92 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Amrinone (Inamrinone) is a positive inotropic-vasodilator agent. Amrinone is a selective phosphodiesterase III inhibitor that increases cyclic adenosine monophosphate by preventing its breakdown. Amrinone is also an orally active, non-glycosidic and non-catecholamine cardiotonic agent[1][2][3].

In Vitro

Amrinone (Inamrinone) produced a dose-dependent inhibition of ADP-induced rat platelet aggregation in vitro as well as ex vivo in rats. The proliferation of human aortic smooth muscle cells in culture stimulated with FBS or PDGF was also inhibited by amrinone[4].

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

In Vivo

Amrinone (Inamrinone) is administered subcutaneously to rats at a dose of 10 mg/kg/day for 14 days, significant reduction of neointimal thickness was noted[4].

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REFERENCES

[1]. M Hachisu, et al. [Effects of Amrinone, an Inhibitor of c-AMP-specific Phosphodiesterases, on Neointimal Hyperplasia After Balloon Injury in Rats]. Nihon Yakurigaku Zasshi. 1998 Oct;112(4):267-74.

[2]. A A Alousi, et al. The Beneficial Effect of Amrinone on Acute Drug-Induced Heart Failure in the Anaesthetised Dog. Cardiovasc Res. 1985 Aug;19(8):483-94.

[3]. S Ichioka, et al. Clinical Use of Amrinone (A Selective Phosphodiesterase III Inhibitor) in Reconstructive Surgery. Plast Reconstr Surg. 2001 Dec;108(7):1931-7.

[4]. T H LeJemtel, et al. Amrinone: A New Non-Glycosidic, Non-Adrenergic Cardiotonic Agent Effective in the Treatment of Intractable Myocardial Failure in Man. Circulation. 1979 Jun;59(6):1098-104.

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

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