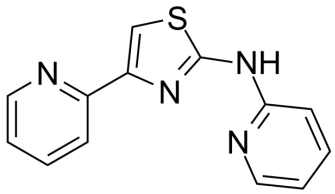
ICA

Cat. No.:	HY-22044
CAS No.:	3374-88-7
Molecular Formula:	$C_{13}H_{10}N_4S$
Molecular Weight:	254.31
Target:	Parasite
Pathway:	Anti-infection

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 : ≥ 49.5 mg/mL (194.64 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration / Solvent / Mass	1 mg	5 mg	10 mg
1 mM	3.9322 mL	19.6610 mL	39.3221 mL
5 mM	0.7864 mL	3.9322 mL	7.8644 mL
10 mM	0.3932 mL	1.9661 mL	3.9322 mL

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

BIOLOGICAL ACTIVITY

Description

ICA (N-(pyridin-2-yl)-4-(pyridin-2-yl)thiazol-2-amine) is a SK channel inhibitor that has antileishmanial activity with an IC_{50} of 2.1 μM.

IC_{50} & Target

IC50: 2.1 μM (Antileishmanial)[1]

In Vitro

The SK channel inhibitor ICA exhibits antiarrhythmic effects. ICA prevents electrically induced runs of atrial fibrillation in the isolated right atrium and induces atrial postrepolarization refractoriness and depolarizes resting membrane potential. ICA at 1 to 10 μM slows conduction velocity. At increased pacing frequencies, SK channel inhibition by ICA (10-30 μM) demonstrates prominent depression of other sodium channel-dependent parameters[2].

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

REFERENCES

[1]. Bhuniya D, et al. Aminothiazoles: Hit to lead development to identify antileishmanial agents. Eur J Med Chem. 2015 Sep 18;102:582-93.

[2]. Skibsbye L, et al. Antiarrhythmic Mechanisms of SK Channel Inhibition in the Rat Atrium. J Cardiovasc Pharmacol. 2015 Aug;66(2):165-76.

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