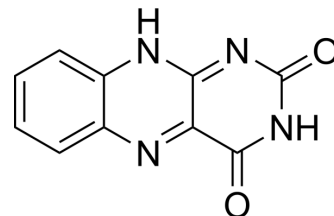


Alloxazine

Cat. No.:	HY-123085		
CAS No.:	490-59-5		
Molecular Formula:	C ₁₀ H ₆ N ₄ O ₂		
Molecular Weight:	214.18		
Target:	Adenosine Receptor		
Pathway:	GPCR/G Protein		
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 : 5 mg/mL (23.34 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	4.6690 mL	23.3449 mL	46.6897 mL
	5 mM	0.9338 mL	4.6690 mL	9.3379 mL
	10 mM	0.4669 mL	2.3345 mL	4.6690 mL

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

BIOLOGICAL ACTIVITY

Description

Alloxazine is a selective A_{2b} antagonist. Alloxazine completely block 5'-N-Ethylcarboxamido adenosine (NECA)-mediated cyclic AMP accumulation with an IC₅₀ of 2.9 μM. Alloxazine can be used for the research of cancer^{[1][2]}.

IC₅₀ & Target

IC₅₀: 2.9 μM (AMP)^[1]

In Vitro

Alloxazine (0-30 μM, 20 min) inhibits cyclic AMP production in PGT-β cells^[1].

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

Cell Viability Assay^[1]

Cell Line:	PGT-β cells
Concentration:	0-30 μM
Incubation Time:	20 min

	Result:	Inhibited the cyclic AMP generation concentration-dependently with an IC ₅₀ of 2.9 μM.
In Vivo	Alloxazine (1 μmol/L; cortical surface suffusion for 0-20 min) suppresses NECA-induced vasodilation ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Male Sprague-Dawley rats ^[2]
	Dosage:	1 μmol/L
	Administration:	Cortical surface suffusion; 1 μmol/L once
	Result:	Significantly suppressed vasodilation with increased EC ₂₅ value of 0.60 μmol/L.

REFERENCES

[1]. Brackett LE, Daly JW. Functional characterization of the A_{2b} adenosine receptor in NIH 3T3 fibroblasts. *Biochem Pharmacol.* 1994 Mar 2;47(5):801-14.

[2]. Shin HK, et al. Role of adenosine A_{2B} receptors in vasodilation of rat pial artery and cerebral blood flow autoregulation. *Am J Physiol Heart Circ Physiol.* 2000 Feb;278(2):H339-44.

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

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