Pyridoxylamine

Cat. No.: HY-B1745

CAS No.: 85-87-0

Molecular Formula: $C_8H_{12}N_2O_2$

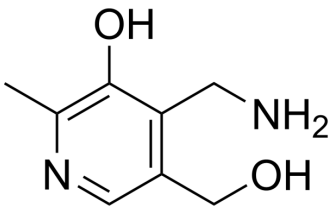
Molecular Weight: 168.19

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

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 : 16.67 mg/mL (99.11 mM; Need ultrasonic)

H_2O : 6.25 mg/mL (37.16 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	5.9457 mL	29.7283 mL	59.4566 mL
5 mM	1.1891 mL	5.9457 mL	11.8913 mL
10 mM	0.5946 mL	2.9728 mL	5.9457 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: ≥ 2.08 mg/mL (12.37 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (12.37 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (12.37 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Pyridoxylamine is an advanced glycation end production (AGEs) and lipoxidation end products (ALEs) inhibitor, to protect against diabetes-induced retinal vascular lesions.

IC_{50} & Target

Human Endogenous Metabolite

In Vitro

Pyridoxylamine (PM), a member of the B_6 vitamer family, is a potent scavenger of reactive carbonyls, inhibiting the late

	stages of glycation reactions that lead to AGE formation[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Pyridoxylamine limits the formation of CML and CEL and cross-linking in skin collagen and, ultimately inhibits the development of nephropathy in STZ-diabetic rats. Pyridoxylamine does not appear to function as an antioxidant since it does not prevent lipid peroxidation reactions. At the same time, it does prevent protein modification by products of lipid peroxidation, including inhibiting formation of malondialdehyde and 4-hydroxynonenal adducts on protein in Zucker rats in vivo[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Int J Biol Sci. 2022 Jan 1;18(2):809-825.
- Molecules. 2023 Apr 11, 28(8), 3375.

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REFERENCES

[1]. Stitt A, et al. The AGE inhibitor pyridoxamine inhibits development of retinopathy in experimental diabetes. Diabetes. 2002 Sep;51(9):2826-32.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA