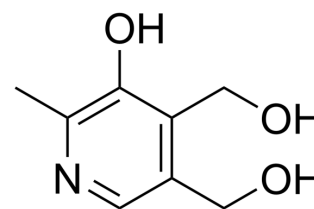


Pyridoxine hydrochloride

Cat. No.:	HY-N0682
CAS No.:	58-56-0
Molecular Formula:	C ₈ H ₁₂ ClNO ₃
Molecular Weight:	205.64
Target:	Endogenous Metabolite; Keap1-Nrf2
Pathway:	Metabolic Enzyme/Protease; NF-κB
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



HCl

SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 50 mg/mL (243.14 mM)
DMSO : ≥ 50 mg/mL (243.14 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	4.8629 mL	24.3143 mL	48.6287 mL
	5 mM	0.9726 mL	4.8629 mL	9.7257 mL
	10 mM	0.4863 mL	2.4314 mL	4.8629 mL

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 100 mg/mL (486.29 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (12.16 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (12.16 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (12.16 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Pyridoxine hydrochloride (Pyridoxol; Vitamin B6) is a pyridine derivative. Pyridoxine (Pyridoxol; Vitamin B6) exerts antioxidant effects in cell model of Alzheimer's disease via the Nrf-2/HO-1 pathway.

IC₅₀ & Target

Microbial Metabolite	Human Endogenous Metabolite
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In Vitro

Pyridoxine exerts a protective potential against AD, attenuates ROS levels, decreases the expressions of cytoplasmic Nrf2, and upregulates whole-cell HO-1 expression^[1].

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

CUSTOMER VALIDATION

- Nat Commun. 2020 Feb 18;11(1):941.
- Microbiome. 2019 Mar 20;7(1):43.
- Cancer Lett. 2020 Nov 1;492:96-105.
- Molecules. 2023 Apr 11, 28(8), 3375.
- Laurea Magistrale in Biomedical Engineering, Politecnico di Milano. 2019 Jun.

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REFERENCES

[1]. Li C, et al. Pyridoxine exerts antioxidant effects in cell model of Alzheimer's disease via the Nrf-2/HO-1 pathway. Cell Mol Biol (Noisy-le-grand). 2018 Jul 30;64(10):119-124.

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

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