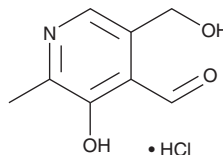


PRODUCT INFORMATION

Pyridoxal (hydrochloride)

Item No. 35379

CAS Registry No.: 65-22-5
Formal Name: 3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinecarboxaldehyde, monohydrochloride
MF: $C_8H_9NO_3 \cdot HCl$
FW: 203.6
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 253, 291, 316 nm
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Pyridoxal (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the pyridoxal (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Pyridoxal (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of pyridoxal (hydrochloride) in these solvents is approximately 1 mg/ml. Pyridoxal (hydrochloride) is also soluble in water.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of pyridoxal (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of pyridoxal (hydrochloride) in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Pyridoxal is a transport form of vitamin B₆.¹ Following membrane transport, it is phosphorylated by pyridoxal kinase (PDXK) to form pyridoxal 5'-phosphate, an active form of vitamin B₆ that functions as a cofactor for over 150 enzymes. Pyridoxal has been used in the synthesis of Schiff bases and metal ion complexes.²

References

1. Ueland, P.M., McCann, A., Midttun, Ø., *et al.* Inflammation, vitamin B6 and related pathways. *Mol. Aspects Med.* **53**, 10-27 (2017).
2. Omidinia, R., Beyramabadi, S.A., Allameh, S., *et al.* Synthesis, characterization, DFT and antibacterial studies of a novel vitamin B6 Schiff base and its Cu(II) and Zn(II) complexes. *J. Mol. Struct.* **1248(15)**, 131452 (2022).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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