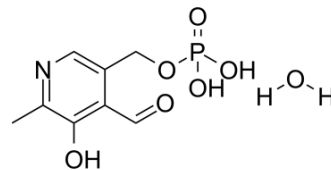


Pyridoxal 5'-phosphate monohydrate

Cat. No.:	HY-W011727A
CAS No.:	41468-25-1
Molecular Formula:	C ₈ H ₁₂ NO ₇ P
Molecular Weight:	265.16
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description	Pyridoxal 5'-phosphate hydrate, the active form of vitamin B6 , is an essential cofactor for multiple enzymes, including aromatic L-amino acid decarboxylase that catalyzes the final stage in the production of the neurotransmitters dopamine and serotonin. Pyridoxal 5'-phosphate hydrate is the most important coenzyme variant in the process of vitamin B6 intracellular phosphorylation and is interconvertible with other variants, including pyridoxine 5'-phosphate (PNP) and pyridoxamine 5'-phosphate (PMP) ^{[1][2]} .
IC₅₀ & Target	IC50: active form of vitamin B6 ^[1]

REFERENCES

- [1]. Allen GF, et al. Pyridoxal 5'-phosphate deficiency causes a loss of aromatic L-amino acid decarboxylase in patients and human neuroblastoma cells, implications for aromatic L-amino acid decarboxylase and vitamin B(6) deficiency states. *J Neurochem.* 2010 Jul;114(1):87-96.
- [2]. Calderón-Ospina CA, et al. B Vitamins in the nervous system: Current knowledge of the biochemical modes of action and synergies of thiamine, pyridoxine, and cobalamin. *CNS Neurosci Ther.* 2020 Jan;26(1):5-13.

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

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