

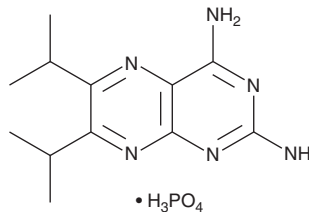
PRODUCT INFORMATION



AH 10639 (phosphate)

Item No. 41043

CAS Registry No.: 84176-65-8
Formal Name: 6,7-bis(1-methylethyl)-2,4-pteridinediamine, monophosphate
Synonyms: DPP, NSC 98771, Pteridine 0/129/II
MF: C₁₂H₁₈N₆ • H₃PO₄
FW: 344.3
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

AH 10639 (phosphate) is supplied as a solid. A stock solution may be made by dissolving the AH 10639 (phosphate) in the solvent of choice, which should be purged with an inert gas. AH 10639 (phosphate) is sparingly soluble (1-10 mg/ml) in DMSO.

Description

AH 10639 is an amine-modified pteridine.¹ It selectively inhibits *T. gondii* dihydrofolate reductase (DHFR; IC₅₀ = 0.033 μM) over DHFR from the pathogenic yeast *P. carinii* and rat liver (IC₅₀s = 0.2 and 1.1 μM, respectively). AH 10639 reduces *T. gondii* replication in *T. gondii*-infected MDBK bovine kidney cells with a mean significant inhibitory (MSI) concentration value of 1 μM and inhibits the uptake of *para*-aminobenzoic acid, a folate precursor, by *P. carinii* (IC₅₀ = 16.2 μM). It increases survival in *V. cholera*-infected mice when administered at a dose of 500 mg/kg.² AH 10639 reduces energy loss and increases thermal stability and power conversion efficiency, as well as improves interfacial contacts, when applied to the fullerene/cathode interface in inverted perovskite solar cells.³

References

1. Jackson, H.C., Biggadike, K., McKilligin, E., et al. 6,7-disubstituted 2,4-diaminopteridines: Novel inhibitors of *Pneumocystis carinii* and *Toxoplasma gondii* dihydrofolate reductase. *Antimicrob. Agents Chemother.* **40(6)**, 1371-1375 (1996).
2. Collier, H.O.J. and Hall, I.F. Studies in the chemotherapy of cholera. VI. Protection by pteridines of mice infected with *Vibrio cholerae*. *Ann. Trop. Med. Parasitol.* **45(1)**, 58-61 (1951).
3. He, Z., Xiong, J., Zhang, Y., et al. Simultaneous realization of bulk and interface regulation based on 2,4-diamino-6,7-diisopropylpteridine phosphate for efficient and stable inverted perovskite solar cells. *J. Mater. Chem. A* **12**, 2309-2322 (2024).

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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