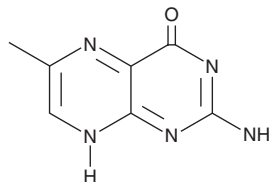


PRODUCT INFORMATION

6-Methylpterin

Item No. 35380

CAS Registry No.: 708-75-8
Formal Name: 2-amino-6-methyl-4(3H)-pteridinone
Synonym: 6-MPT
MF: C₇H₇N₅O
FW: 177.2
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

6-Methylpterin is supplied as a solid. A stock solution may be made by dissolving the 6-methylpterin in the solvent of choice, which should be purged with an inert gas. 6-Methylpterin is slightly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. 6-Methylpterin is also slightly 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 6-methylpterin can be prepared by directly dissolving the solid in aqueous buffers. 6-Methylpterin is slightly soluble in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

6-Methylpterin is a derivative of the essential B vitamin folic acid (Item No. 20515).¹ It generates singlet oxygen and hydrogen peroxide when exposed to photoirradiation in cell-free assays.² 6-Methylpterin has been used as an internal standard for the detection of pterins in urine.³

References

1. Tsyupka, D.V., Mordovina, E.A., Sindeeva, O.A., *et al.* High-fluorescent product of folic acid photodegradation: Optical properties and cell effect. *J. Photochem. Photobiol. A Chem.* **407**, 113045 (2021).
2. Cabrerizo, F.M., Lorente, C., Vignoni, M., *et al.* Photochemical behavior of 6-methylpterin in aqueous solutions: Generation of reactive oxygen species. *Photochem. Photobiol.* **81(4)**, 793-801 (2005).
3. Girón, A.J., Martín-Tornero, E., Sánchez, M.C.H., *et al.* A simple HPLC-ESI-MS method for the direct determination of ten pteridinic biomarkers in human urine. *Talanta* **101**, 465-472 (2012).

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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