

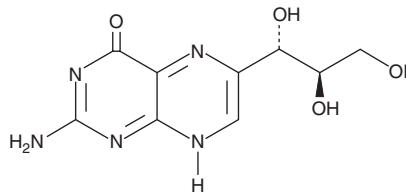
PRODUCT INFORMATION



D-Neopterin

Item No. 12057

CAS Registry No.: 2009-64-5
Formal Name: 2-amino-6-[1S,2R,3-trihydroxypropyl]-4(3H)-pteridinone
MF: C₉H₁₁N₅O₄
FW: 253.2
Purity: ≥98%
UV/Vis.: λ_{max}: 215, 235, 275, 345 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

D-Neopterin is supplied as a crystalline solid. A stock solution may be made by dissolving the D-neopterin in the solvent of choice. D-Neopterin is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of neopterin in these solvents is approximately 1 and 0.3 mg/ml, respectively.

D-Neopterin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, D-neopterin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. D-Neopterin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Neopterin is a pyrazino-pyrimidine compound derived from GTP that represents an intermediate product in the synthetic pathway of biopterin and is an essential cofactor in neurotransmitter synthesis.¹ Neopterin is released from macrophages upon immune stimulation with interferon-γ from activated T cells.² It is routinely used as a biochemical tool to screen for and monitor the progression of certain diseases accompanied by hyperimmune stimulation.²

References

1. Shen, R., Alam, A., and Zhang, Y. Inhibition of GTP cyclohydrolase I by pterins. *Biochim. Biophys. Acta* **965**(1), 9-15 (1988).
2. Huber, C., Batchelor, J.R., Fuchs, D., *et al.* Immune response-associated production of neopterin. Release from macrophages primarily under control of interferon-g. *J. Exp. Med.* **160**(1), 310-316 (1984).

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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