

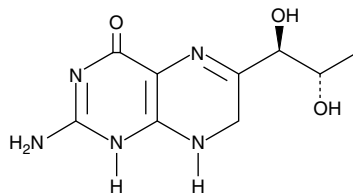
Product Information



7,8-dihydro-L-Biopterin

Item No. 81882

CAS Registry No.: 6779-87-9
Formal Name: 2-amino-6-(1R,2S-dihydroxypropyl)-7,8-dihydro-4(1H)-pteridinone
Synonyms: BH₂; Dihydrobiopterin
MF: C₉H₁₃N₅O₃
FW: 239.2
Purity: ≥97%
Stability: ≥2 years at -20°C
Supplied as: A yellow crystalline solid
UV/Vis.: λ_{max}: 234, 279, 332 nm



Laboratory Procedures

For long term storage, we suggest that 7,8-dihydro-L-biopterin (BH₂) be stored as supplied at -20°C. It should be stable for at least two years.

Before use, a stock solution should be prepared by dissolving the BH₂ in water. BH₂ is freely soluble in water.

BH₂ is a metabolic end product of GTP cyclohydrolase I *in vitro*. The compound can be successfully oxidized to biopterin in the presence of iodine in 0.1 N NaOH.¹ BH₂ is a noncompetitive inhibitor of GTP cyclohydrolase I, with a K_i of 14.4 μM.² BH₂ is approximately 12 times more potent than oxidized pterins, folates, and aminopterin as an inhibitor of this enzyme.

References

1. Fukushima, T. and Nixon, J.C. Analysis of reduced forms of biopterin in biological tissues and fluids. *Anal. Biochem.* **102**, 176-188 (1980).
2. Shen, R., Alam, A., and Zhang, Y. Inhibition of GTP cyclohydrolase I by pterins. *Biochim. Biophys. Acta* **965**, 9-15 (1988).

Related Products

2,4-Diamino-6-hydroxyprimidine - Item No. 81260 • tetrahydro-L-Biopterin (dihydrochloride) - Item No. 81880

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy located on our website and in our catalog**.

Copyright Cayman Chemical Company, 05/17/2011