

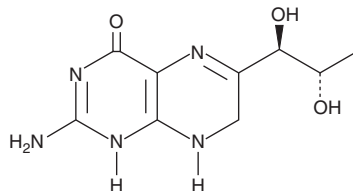
# Product Information



## 7,8-dihydro-L-Biopterin

Catalog No. 81882

**CAS Registry No.:** 6779-87-9  
**Formal Name:** 2-amino-6-(1R,2S-dihydroxypropyl)-7,8-dihydro-4(1H)-pteridinone  
**Synonyms:** BH<sub>2</sub>; Dihydrobiopterin  
**MF:** C<sub>9</sub>H<sub>13</sub>N<sub>5</sub>O<sub>3</sub>  
**FW:** 239.2  
**Purity:** ≥97%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A yellow crystalline solid



### Laboratory Procedures

For long term storage, we suggest that 7,8-dihydro-L-biopterin (BH<sub>2</sub>) 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 BH<sub>2</sub> in water. BH<sub>2</sub> is freely soluble in water.

BH<sub>2</sub> 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.<sup>1</sup> BH<sub>2</sub> is a noncompetitive inhibitor of GTP cyclohydrolase I, with a K<sub>i</sub> of 14.4 μM.<sup>2</sup> BH<sub>2</sub> 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-hydroxyprymidine - Cat. No. 81260 • tetrahydro-L-Biopterin (dihydrochloride) - Cat. No. 81880

### Cayman Chemical

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**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.

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