

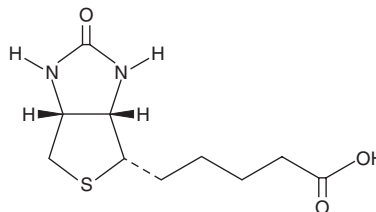
# PRODUCT INFORMATION



## Biotin

Item No. 22582

**CAS Registry No.:** 58-85-5  
**Formal Name:** (3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanoic acid  
**Synonyms:** D-Biotin, NSC 63865, Vitamin B<sub>7</sub>  
**MF:** C<sub>10</sub>H<sub>16</sub>N<sub>2</sub>O<sub>3</sub>S  
**FW:** 244.3  
**Purity:** ≥98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Description

Biotin is an essential coenzyme for certain carboxylases. It is used to modify histones and regulate gene transcription.<sup>1-3</sup> Biotin-dependent carboxylases are involved in fatty acid and amino acid synthesis, and play a role in gluconeogenesis.<sup>1</sup> In addition, biotin is used in biotechnological applications such as DNA-hybridization, flow cytometry, affinity purification, and identification of protein-protein interactions and post-translational modifications.<sup>4</sup>

### References

1. Tong, L. Structure and function of biotin-dependent carboxylases. *Cell Mol. Life Sci.* **70(5)**, 863-891 (2013).
2. Mock, D.M. Biotin: From Nutrition to Therapeutics. *J. Nutr.* (2017).
3. Zemleni, J., Teixeira, D.C., Kuroishi, T., *et al.* Biotin requirements for DNA damage prevention. *Mutat. Res.* **733(1-2)**, 58-60 (2012).
4. Dundas, C.M., Demonte, D., and Park, S. Streptavidin-biotin technology: Improvements and innovations in chemical and biological applications. *Appl. Microbiol. Biotechnol.* **97(21)**, 9343-9353 (2013).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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