

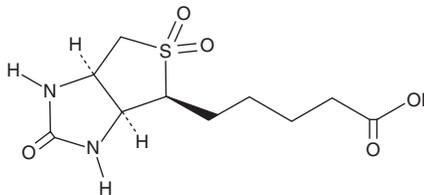
PRODUCT INFORMATION



Biotin sulfone

Item No. 34144

CAS Registry No.: 40720-05-6
Formal Name: (3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanoic acid, 5,5-dioxide
MF: C₁₀H₁₆N₂O₅S
FW: 276.3
Purity: ≥95%
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

Biotin sulfone is supplied as a solid. A stock solution may be made by dissolving the biotin sulfone in the solvent of choice, which should be purged with an inert gas. Biotin sulfone is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

Biotin sulfone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, biotin sulfone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Biotin sulfone has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Biotin sulfone is an oxidized form of biotin (Item No. 22582).¹ It binds to avidin with a binding ratio of 0.332 compared with biotin.² Biotin sulfone has been used to immobilize oligosaccharides on avidin-coated surfaces for the detection of anti-*C. albicans* antibodies.¹

References

1. Collot, M., Sendid, B., Fievez, A., *et al.* Biotin sulfone as a new tool for synthetic oligosaccharide immobilization: Application to multiple analysis profiling and surface plasmonic analysis of anti-*Candida albicans* antibody reactivity against α and β (1 \rightarrow 2) oligomannosides. *J. Med. Chem.* **51(19)**, 6201-6210 (2008).
2. Zempleni, J. and Mock, D.M. Advanced analysis of biotin metabolites in body fluids allows a more accurate measurement of biotin bioavailability and metabolism in humans. *J. Nutr.* **129(2S Suppl)**, 494S-497S (1999).

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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