



CERTIFICATE OF ANALYSIS

20 Martin Ross Avenue, North York, ON, M3J 2K8, CANADA
Tel: (416) 665-9696, Fax: (416) 665-4439
Email: orders.trc@lgcgroup.com Website: www.trc-canada.com

1. Identification

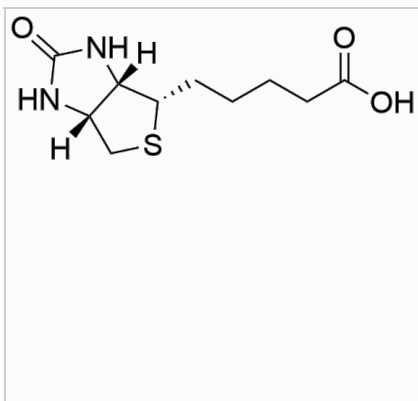
Catalogue Number: B389040

CAS Number: 58-85-5

Product: Biotin

Synonym: (3aS,4S,6aR)-Hexahydro-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanoic Acid;

Structure:



Molecular Formula:

C₁₀H₁₆N₂O₃S

Molecular weight:

244.31

Source of Product:

N/A

Solubility:

Aqueous Base (Sparingly),
DMSO (Slightly), Methanol
(Slightly, Heated)

Lot Number: 16-ANR-46-1

Purity: 98%

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: 4°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
NMR	Conforms to Structure	Conforms
MS	Conforms to Structure	Conforms
Melting Point	Report Result	>228°C (dec.)
Elemental Analysis	Conforms	Refer: Additional Information
Specific Rotation	Report Result	Refer: Additional Information
Appearance	White to Off-White Solid	White Solid

Additional Information:

TLC Conditions: SiO₂; Dichloromethane : Methanol : Acetic Acid = 9 : 1 : 0.1; Visualized with AMCS and KMnO₄; Single Spot, R_f = 0.35. 1H NMR and MS conform to structure. Elemental Analysis: (Found) %C: 49.01, %H: 6.65, %N: 11.38; (Calculated) %C: 49.16, %H: 6.60, %N: 11.47. Specific Rotation: +85.0° (c = 0.2, 1N NaOH)

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
Philip Chan			3/23/2018	3/21/2028

