



>>Derivative: Succinimidoyl ester

CAS Registry Number: 35013-72-0

Molecular Formula: C₁₄H₁₉N₃O₅S

Molecular Weight: 341.387

Accurate Mass: 341.104542

Percentage Composition: C 49.26%; H 5.61%; N 12.31%; O 23.43%; S 9.39%

Use/Importance: Reagent for biotinylation of proteins and nucleic acids

Physical Description: Cryst. (2-propanol)

Melting Point: Mp 196-198°

>>Derivative: Amide

Synonym(s): Biotinamide

CAS Registry Number: 6929-42-6

Molecular Formula: C₁₀H₁₇N₃O₂S

Molecular Weight: 243.329

Accurate Mass: 243.104147

Percentage Composition: C 49.36%; H 7.04%; N 17.27%; O 13.15%; S 13.18%

Source/Synthesis: Formed by the action of *Rhodotorula flava* on biotin

Physical Description: Rosettes (MeOH or H₂O)

Melting Point: Mp 242-244°

Optical Rotation: [α]_D²³ +80 (c, 2.5 in EtOH)

>>Derivative: *N*¹-Benzyl

Synonym(s): *N*-Benzylbiotin. γ -Biotin

Molecular Formula: C₁₇H₂₂N₂O₃S

Molecular Weight: 334.438

Accurate Mass: 334.135113

Percentage Composition: C 61.05%; H 6.63%; N 8.38%; O 14.35%; S 9.59%

Physical Description: Needles (MeOH aq.)

Melting Point: Mp 183-184°

Other Data: Originally descr. as a natural vitamin under the name γ -biotin and descr. as *N*-phenylbiotin. Later shown to be an artifact with no vitamin activity

References: