

Product Data Sheet

Product Name: Biotin (S)-sulfoxide

Cat. No.: GC49170

Chemical Properties

Cas. No. 10406-89-0

SMILES OC(CCCC[C@H]1[C@]2([H])[C@](NC(N2)=O)([H])C[S@@]1=O)=O

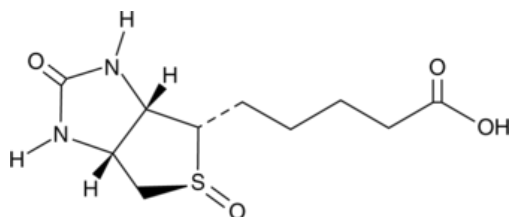
Formula C₁₀H₁₆N₂O₄S M.Wt 260.3

Solubility Acetonitrile: slightly soluble, DMSO: slightly soluble Storage -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

Biotin (S)-sulfoxide is an inactive metabolite of the coenzyme biotin.^{1,2} It has also been found in *E. coli* and is reduced by the biotin sulfoxide reduction system as a source of biotin.³

1. Denkel, L.A., Rhen, M., and Bange, F.-C. Biotin sulfoxide reductase contributes to oxidative stress tolerance and virulence in *Salmonella enterica* serovar Typhimurium. *Microbiology (Reading)* 159(Pt 7)1447-1458(2013) 2. Carling, R.S., and Turner, C. Methods for assessment of biotin (Vitamin B7). *Laboratory assessment of vitamin status* 193-217(2019) 3. del Campillo-Campbell, A., Dykhuizen, D., and Clearly, P.P. Enzymic reduction of d-biotin d-sulfoxide to d-biotin. *Methods Enzymol.* 62379-385(1979)

Caution: Product has not been fully validated for medical applications. For research use only.

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