

Product Data Sheet

Product Name: N-Acetyl-L-thyroxine

Cat. No.: GC49802

Chemical Properties

Cas. No. 26041-51-0

SMILES CC(=O)N[C@@H](Cc1ccc(OC2=CC(I)=C(C(I)=C2)O)c(I)c1)C(=O)O

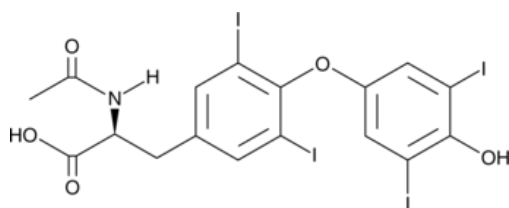
Formula C₁₇H₁₃I₄NO₅ M.Wt 818.9

Solubility DMF: 14 mg/mL, DMSO: 25 mg/mL, Ethanol: 20 mg/mL, PBS (pH 7.2): 0.2 mg/mL Storage -20°C

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

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

Structure



Background

N-Acetyl-L-thyroxine is an acetylated derivative of L-thyroxine.¹ It only weakly binds to thyroxine-binding globulin (TBG) in isolated human serum with a relative binding affinity of 25 compared with L-thyroxine. N-Acetyl-L-thyroxine is also a potential impurity in commercial preparations of L-thyroxine.²

1. Snyder, S.M., Cavalieri, R.R., Goldfine, I.D., et al. Binding of thyroid hormones and their analogues to thyroxine-binding globulin in human serum. *J. Biol. Chem.* 251(21):6489-6494 (1976)
2. Panmanad, D., Joshi, M.S., Patil, R., et al. Synthesis and characterization of potential impurities in levothyroxine. *Chem. Sci. Trans.* 5(4):1082-1089 (2016)

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

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