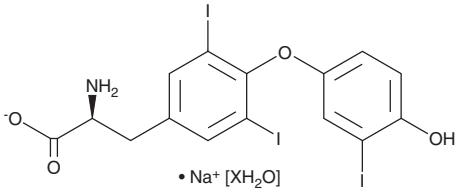
PRODUCT INFORMATION

3,3',5-Triiodo-L-thyronine (sodium salt hydrate)

Item No. 16028

CAS Registry No.: 345957-19-9
Formal Name: O-(4-hydroxy-3-iodophenyl)-3,5-diiodo-L-tyrosine, monosodium salt, hydrate
Synonyms: Liothyronine, T3, L-3,3',5-Triiodothyronine
MF: $C_{15}H_{11}I_3NO_4$ • Na [XH_2O]
FW: 673.0
Purity: ≥98%
UV/Vis.: λ_{max}: 227, 297 nm
Supplied as: A crystalline 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

3,3',5-Triiodo-L-thyronine (sodium salt hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the 3,3',5-triiodo-L-thyronine (sodium salt hydrate) in the solvent of choice, which should be purged with an inert gas. 3,3',5-Triiodo-L-thyronine (sodium salt hydrate) is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of 3,3',5-triiodo-L-thyronine (sodium salt hydrate) in these solvents is approximately 1 and 0.25 mg/ml, respectively.

3,3',5-Triiodo-L-thyronine (sodium salt hydrate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 3,3',5-triiodo-L-thyronine (sodium salt hydrate) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 3,3',5-Triiodo-L-thyronine (sodium salt hydrate) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

3,3',5-Triiodo-L-thyronine (T3) is a thyroid hormone.[1] It is produced by 5'-monodeiodination of the prohormone thyroxine (T4) in various tissues, including liver and kidney. T3 is an agonist of thyroid hormone receptors TRα and TRβ (K_is = 2.3 nM for both) that modulates diverse biological properties, including metabolism, cardiac function, growth, and redox signaling.[2-5] It also functions as an inhibitor of L-type amino acid transporter 1 (LAT1), inhibiting LAT1-mediated leucine uptake in HEK293 cells when used at a concentration of 10 µM.[6]

References

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