

**Product Name:** T3

**Catalog No.:** 6666

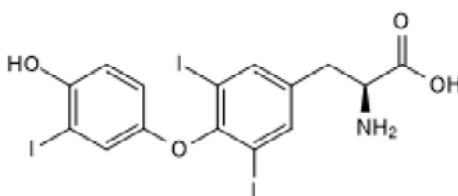
**Batch No.:** 4

CAS Number: 6893-02-3

IUPAC Name: O-(4-Hydroxy-3-iodophenyl)-3,5-diiodo-L-tyrosine

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>15</sub>H<sub>12</sub>I<sub>3</sub>NO<sub>4</sub>.  
**Batch Molecular Weight:** 650.97  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 50 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 98.7% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = +21 (Concentration = 1, Solvent = 1M HCl:EtOH 1:2)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	27.68	1.86	2.15
Found	27.51	1.84	1.97

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

T3 is a thyroid hormone. Promotes differentiation of oligodendroglial precursor cells in neonatal rats and promotes maturation of hiPSC-derived cardiomyocytes. Also specifies cone cell subtype in retinal cell differentiation protocols. T3 is used in protocols to generate cortical spheroids from hPSCs. T3 synthesized to Ancillary Material Grade also available. For more information about how T3 may be used, see our protocol: Generation of  $\beta$  cells from hPSCs

**Physical and Chemical Properties:**

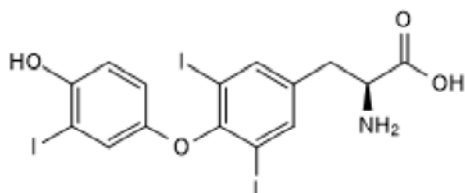
Batch Molecular Formula: C<sub>15</sub>H<sub>12</sub>I<sub>3</sub>NO<sub>4</sub>.

Batch Molecular Weight: 650.97

Physical Appearance: White solid

**Minimum Purity:**  $\geq$ 98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 50 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Surendran et al (2022)** An improved protocol for generation and characterization of human-induced pluripotent stem cell-derived retinal pigment epithelium cells. STAR Protoc. **3** 101803. PMID: 36386870.

**Eldred et al (2018)** Thyroid hormone signaling specifies cone subtypes in human retinal organoids. Science **362** eaau6348. PMID: 30309916.

**Madhavan et al (2018)** Induction of myelinating oligodendrocytes in human cortical spheroids. Nat Methods. **15** 700. PMID: 30046099.

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