

# Certificate of Analysis

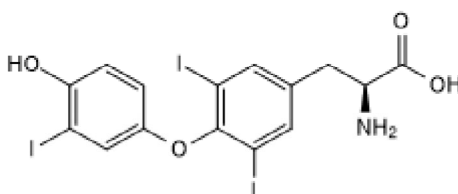
[www.tocris.com](http://www.tocris.com)

**Product Name:** T3  
**CAS Number:** 6893-02-3  
**IUPAC Name:** O-(4-Hydroxy-3-iodophenyl)-3,5-diiodo-L-tyrosine

**Catalog No.:** 6666 **Batch No.:** 5

## 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 99.0% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = +22.4 (Concentration = 1, Solvent = 1:2 1M HCl:EtOH)  
**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	27.68	1.86	2.15
Found	27.22	1.79	2.26

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

**bio-techne.com**  
info@bio-techne.com  
techsupport@bio-techne.com

**North America**  
Tel: (800) 343 7475

**China**  
info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**  
Tel: +44 (0)1235 529449

**Rest of World**  
[www.tocris.com/distributors](http://www.tocris.com/distributors)  
Tel: +1 612 379 2956

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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 to generate cortical spheroids and  $\beta$  cells (see protocol below) 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 Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

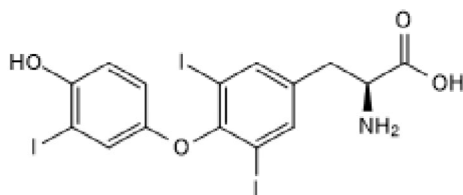
Batch Molecular Formula: C<sub>15</sub>H<sub>12</sub>I<sub>3</sub>NO<sub>4</sub>.

Batch Molecular Weight: 650.97

Physical Appearance: White solid

**Minimum Purity:** ≥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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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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