Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com

DATASHEET

T3 (triiodothyronine)

Product overview

Name	T3 (triiodothyronine)
Cat No	HB7470
Alternative names	Thyroid hormone triiodothyronine (T3),
Biological action	Other
Purity	>98%
Description	Thyroid hormone. Frequently used in various stem cell protocols.

Biological Data

Biological description

Thyroid hormone with many biological actions. It is essential for embryogenesis and brain development, T3 increases neuronal differentiation.

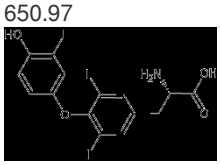
It is frequently used as part of various stem cell related protocols:

- Promotes neuronal differentiation of embryonic neural stem cells (eNSCs)
- Beneficial for stem cell maintenance and promotes trophoblast differentiation and improves cell survival and passaging efficiency.
- Used when generating hiPSC-cardiomyocytes (hiPSC-CM)
- Aids generation of cortical spheroids from hPSCs and culture of 3D spheroids.

Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in DMSO (50 mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	O-(4-Hydroxy-3-iodophenyl-3,5-diiodo-L-tyrosine
Molecular Weight	650.97
Chemical structure	
Molecular Formula	$C_{15}H_{12}I_3NO_4$
CAS Number	6893-02-3
PubChem identifier	5920
SMILES	C1=CC(=C(C=C1OC2=C(C=C(C=C2I)C[C@@H](C(=O)O)N)I)I)O
InChi	InChI=1S/C15H12I3NO4/c16-9-6-8(1-2-13(9)20)23-14-10(17)3-7(4-11(14)18)5-12(19)15(21)22/h1-4,6,12,20H,5,19H2,(H,21,22)/t12-/m0/s1
InChiKey	AUYYCJSJGJYCDS-LBPRGKRZSA-N

References

Thyroid hormone enhances stem cell maintenance and promotes lineage-specific differentiation in human embryonic stem cells.

Deng C et al (2022) Stem cell research & therapy 13
PubMedID 35313973

Thyroid hormone promotes neuronal differentiation of embryonic neural stem cells by inhibiting STAT3 signaling through TRα1.

Chen C et al (2012) Stem cells and development 21
PubMedID 22468949

Thyroid and Glucocorticoid Hormones Promote Functional T-Tubule Development in Human-Induced Pluripotent Stem Cell-Derived Cardiomyocytes.

Parikh SS et al (2017) Circulation research 121
PubMedID 28974554

The nuclear receptor THRB facilitates differentiation of human PSCs into more mature hepatocytes.

Ma H et al (2022) Cell stem cell 29
PubMedID 35452598