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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

Solubility overview Storage instructions Storage of solutions

Shipping Conditions

Important

Soluble in DMSO (50 mM)

-20°C

Prepare and use solutions on the same day if possible. Store solutions at -20°C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

Stable for ambient temperature shipping. Follow storage instructions on receipt.

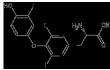
This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not

for human or veterinary use

Chemical Data

Chemical name Molecular Weight **Chemical structure** O-(4-Hydroxy-3-iodophenyl-3,5-diiodo-L-tyrosine

650.97



Molecular Formula **CAS Number PubChem identifier SMILES**

InChi

C₁₅H₁₂I₃NO₄ 6893-02-3 5920

C1=CC(=C(C=C1OC2=C(C=C2I)C[C@@H](C(=O)O)N)I)I)O

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 TRg1

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