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DATASHEET

DMSO (Sterile-filtered)

Product overview

Name DMSO (Sterile-filtered)

Cat No HB3262

Alternative names Methyl sulfoxide, Dimethyl Sulfoxide

Purity >99.9%

Description Widely used solvent. Improves direct differentiation of pluripotent stem cells and used as a stem cell

cryoprotectant

Biological Data

Biological description Organic solvent widely used for dissolving lipophilic substances.

Commonly used as a cryototectant in cryopreservation of stem cells.

DMSO activates the retinoblastoma (Rb) protein and increases the proportion of cells in the early G1 phase of the cell cycle.

DMSO improves directed differentiation of many cell lines. DMSO increases the competency of pluripotent stem cells (in >25 different embryonic and induced pluripotent stem cell lines) to respond to differentiation signals, enhance differentiation across all germ layers and improve terminal differentiation into functional derivatives

Endotoxin < 0.05 I.E(EU)/mL

Solubility & Handling

Storage instructions

Handling Important Room temperature (desiccate)

This compound is light sensitive. We therefore recommend protecting the compound and solutions

from light.

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 Dimethyl sulfoxide



Molecular Formula CAS Number PubChem identifier

C₂H₆OS 67-68-5 679 SMILES InChi InChiKey MDL number

Appearance

CS(=0)C

InChl=1S/C2H6OS/c1-4(2)3/h1-2H3 IAZDPXIOMUYVGZ-UHFFFAOYSA-N

MFCD00002089 colourless liquid

References

Cryopreservation of hematopoietic stem cells.

Berz et al (2007) Am J Hematol 82(6):

PubMedID 17266054

A simple tool to improve pluripotent stem cell differentiation.

Chetty et al (2013) Nat Methods 10(6)

PubMedID 23584186

A cost-effective system for differentiation of intestinal epithelium from human induced pluripotent stem cells.

Ogaki et al (2015) Sci Rep 30

PubMedID 26616277