

Product Data Sheet

MES monohydrate

Cat. No.: HY-D0858A CAS No.: 145224-94-8 Molecular Formula: $C_6H_{15}NO_5S$ Molecular Weight: 213.25

Target: Biochemical Assay Reagents

Pathway: Others

Storage: 4°C, sealed storage, away from moisture

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

DMSO : 14.29 mg/mL (67.01 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	4.6893 mL	23.4467 mL	46.8933 mL
	5 mM	0.9379 mL	4.6893 mL	9.3787 mL
	10 mM	0.4689 mL	2.3447 mL	4.6893 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1.43 mg/mL (6.71 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.43 mg/mL (6.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MES (2-Morpholinoethanesulphonic acid) monohydrate is a buffering agent in biology and biochemistry. MES monohydrate is one of the Good's buffers, the buffer capacity ranging pH 5.5-7.0. MES monohydrate is broadly used to regulate pH value for plants culture medium, reagent solution, and physiological experiments^{[1][2]}.

REFERENCES

[1]. N E Good, et al. Hydrogen ion buffers for biological research. Biochemistry. 1966 Feb;5(2):467-77.

[2]. Tomoko Kagenishi, et al. MES Buffer Affects Arabidopsis Root Apex Zonation and Root Growth by Suppressing Superoxide Generation in Root Apex. Front Plant Sci. 2016 Feb 18;7:79.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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