**Proteins** 

# **Product** Data Sheet

## 5-Sulfosalicylic acid dihydrate

Cat. No.: HY-B0812 CAS No.: 5965-83-3 Molecular Formula:  $C_7H_{10}O_8S$ Molecular Weight: 254.21 Others Target: Pathway: Others

Storage: Powder

-20°C 3 years 2 years

In solvent -80°C 6 months

> -20°C 1 month

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 100 mg/mL (393.38 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.9338 mL	19.6688 mL	39.3376 mL
	5 mM	0.7868 mL	3.9338 mL	7.8675 mL
	10 mM	0.3934 mL	1.9669 mL	3.9338 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: ≥ 2.5 mg/mL (9.83 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (9.83 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (9.83 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description 5-Sulfosalicylic acid dihydrate is a sulfonated salicylic acid derivative. 5-Sulfosalicylic acid dihydrate is effective against the breast cancer cell line, MCF-7, with less toxicity<sup>[1]</sup>. 5-Sulfosalicylic acid dihydrate has antioxidant activities<sup>[2]</sup>.

> 5-Sulfosalicylic acid dihydrate (0.5-4 mM, 24 h) shows a reduction in the viability of MCF-7 cells<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay<sup>[1]</sup>

In Vitro

Cell Line:	MCF-7 and HUVEC cells	
Concentration:	0.5, 1, 2, 4 mM	
Incubation Time:	24 hours	
Result:	Showed the viability of 63.3% and 70.4% in MCF-7 and HUVEC control cells respectively at 1 mM 5-sulfosalicylic acid.	

### **REFERENCES**

[1]. Özsoy M, et al. A protein-sulfosalicylic acid/boswellic acids @metal-organic framework nanocomposite as anticancer drug delivery system. Colloids Surf B Biointerfaces. 2021 Aug;204:111788.

[2]. Ezhilmathi K, et al. Effect of 5-sulfosalicylic acid on antioxidant activity in relation to vase life of Gladiolus cut flowers. Plant Growth Regulation, 2007, 51: 99-108.

Caution: Product has not been fully validated for medical applications. For research use only.

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