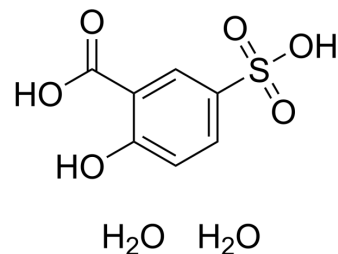


## 5-Sulfosalicylic acid dihydrate

<b>Cat. No.:</b>	HY-B0812		
<b>CAS No.:</b>	5965-83-3		
<b>Molecular Formula:</b>	C <sub>7</sub> H <sub>10</sub> O <sub>8</sub> S		
<b>Molecular Weight:</b>	254.21		
<b>Target:</b>	Others		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	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)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	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

- 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
- 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
- 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>.

#### In Vitro

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>

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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