



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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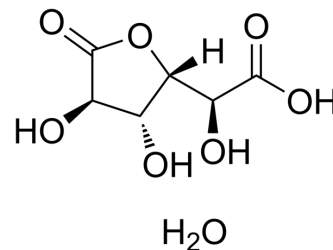
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## D-Saccharic acid 1,4-lactone hydrate

<b>Cat. No.:</b>	HY-134453A
<b>CAS No.:</b>	61278-30-6
<b>Molecular Formula:</b>	C <sub>6</sub> H <sub>10</sub> O <sub>8</sub>
<b>Molecular Weight:</b>	210.14
<b>Target:</b>	Others
<b>Pathway:</b>	Others
<b>Storage:</b>	-20°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 : 100 mg/mL (475.87 mM; Need ultrasonic)  
 H<sub>2</sub>O : ≥ 100 mg/mL (475.87 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	4.7587 mL	23.7937 mL	47.5873 mL
	5 mM	0.9517 mL	4.7587 mL	9.5175 mL
	10 mM	0.4759 mL	2.3794 mL	4.7587 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 (11.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (11.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (11.90 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

D-Saccharic acid 1,4-lactone hydrate is a potent β-glucuronidase inhibitor (IC<sub>50</sub>=48.4 μM). D-Saccharic acid 1,4-lactone hydrate can be used as a standard agent compared with novel β-glucuronidase inhibitors. D-Saccharic acid 1,4-lactone hydrate possesses anticarcinogenic, detoxifying, and antioxidant properties<sup>[1][2]</sup>.

### REFERENCES

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[1]. Taha M, et al. Synthesis,  $\beta$ -glucuronidase inhibition and molecular docking studies of hybrid bisindole-thiosemicarbazides analogs. *Bioorg Chem.* 2016;68:56-63.

[2]. Bhattacharya S, et al. Prophylactic role of D-Saccharic acid-1,4-lactone in tertiary butyl hydroperoxide induced cytotoxicity and cell death of murine hepatocytes via mitochondria-dependent pathways. *J Biochem Mol Toxicol.* 2011;25(6):341-354.

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

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