



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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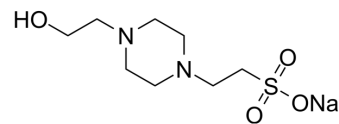
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## HEPES sodium

<b>Cat. No.:</b>	HY-108535		
<b>CAS No.:</b>	75277-39-3		
<b>Molecular Formula:</b>	C <sub>8</sub> H <sub>17</sub> N <sub>2</sub> NaO <sub>4</sub> S		
<b>Molecular Weight:</b>	260.29		
<b>Target:</b>	Biochemical Assay Reagents		
<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

<b>In Vitro</b>	DMSO : 25 mg/mL (96.05 mM; Need ultrasonic)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM		3.8419 mL	19.2093 mL	38.4187 mL
		5 mM		0.7684 mL	3.8419 mL	7.6837 mL
		10 mM		0.3842 mL	1.9209 mL	3.8419 mL
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (9.60 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (9.60 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (9.60 mM); Clear solution</li> </ol>					

### BIOLOGICAL ACTIVITY

<b>Description</b>	HEPES sodium, a nonvolatile zwitterionic chemical buffering agent, is broadly applied in cell culture. HEPES sodium is effective at pH 6.8 to 8.2. HEPES sodium is also a potent inducer of lysosome biogenesis <sup>[1][2][3]</sup> .
<b>In Vitro</b>	HEPES maintains superhydrophilicity of titanium for at least 3 months and resulted in a continuous retention of bioactivity and osteoconductivity <sup>[1]</sup> . HEPES drives lysosome biogenesis, affects MiT/TFE cytoplasmic-nuclear distribution, disrupts global cellular transcriptional profiles, resulting the activation of a MiT/TFE-dependent lysosomal-autophagic gene network in cultured RAW264.7 cells <sup>[3]</sup> .

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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Int Immunopharmacol. 2023 May 12;120:110292.
- Int Immunopharmacol. September 2022, 108953.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

- [1]. Suzuki T, et al. Nonvolatile buffer coating of titanium to prevent its biological aging and for drug delivery. Biomaterials. 2010;31(18):4818-4828.
- [2]. Sledź P, et al. An experimental charge density of HEPES. Acta Crystallogr B. 2010;66(Pt 4):482-492.
- [3]. <https://pubmed.ncbi.nlm.nih.gov/20631430/>

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

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