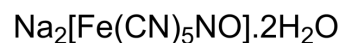


Nitroprusside disodium dihydrate

Cat. No.:	HY-A0119
CAS No.:	13755-38-9
Molecular Formula:	C ₅ H ₄ FeN ₆ Na ₂ O ₃
Molecular Weight:	297.95
Target:	Autophagy
Pathway:	Autophagy
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 100 mg/mL (335.63 mM; Need ultrasonic)																					
	DMSO : 50 mg/mL (167.81 mM; Need ultrasonic)																					
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>3.3563 mL</td> <td>16.7813 mL</td> <td>33.5627 mL</td> </tr> <tr> <td>5 mM</td> <td>0.6713 mL</td> <td>3.3563 mL</td> <td>6.7125 mL</td> </tr> <tr> <td>10 mM</td> <td>0.3356 mL</td> <td>1.6781 mL</td> <td>3.3563 mL</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	1 mM	3.3563 mL	16.7813 mL	33.5627 mL	5 mM	0.6713 mL	3.3563 mL	6.7125 mL	10 mM	0.3356 mL	1.6781 mL	3.3563 mL
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Please refer to the solubility information to select the appropriate solvent.																						
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: PBS Solubility: 100 mg/mL (335.63 mM); Clear solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (8.39 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.39 mM); Clear solution 																					

BIOLOGICAL ACTIVITY

Description	Nitroprusside disodium dehydrate (Sodium nitroprusside dihydrate) is a vasodilator that available for the research of acute hypertension, heart failure. Nitroprusside disodium dehydrate induces autophagy in glutathione-depleted osteoblasts. Nitroprusside disodium dehydrate acts as a nitric oxide (NO) donor in a rat intestinal ischemia reperfusion model ^{[1][2][3][4]} .
In Vitro	Nitroprusside disodium dehydrate sensitizes human gastric cancer cells to tumor necrosis factor-related apoptosis-inducing ligand (TRAIL)-induced apoptosis ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Chem Eng J. 15 August 2022, 136169.
- Redox Biol. 2023 Dec 18:69:103004.
- J Neuroinflammation. 2023 Feb 24;20(1):49.
- Br J Pharmacol. 2021 Aug 6.
- Exp Eye Res. 2024 Apr 5:243:109886.

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REFERENCES

- [1]. Namazi, H., Sodium nitroprusside as a nitric oxide donor in a rat intestinal ischemia reperfusion model: a novel molecular mechanism. Clinics (Sao Paulo), 2008. 63(3): p. 405.
- [2]. J N Cohn, et al. Nitroprusside. Ann Intern Med. 1979 Nov;91(5):752-7.
- [3]. Min Jeong Son, et al. Sodium nitroprusside induces autophagic cell death in glutathione-depleted osteoblasts. J Biochem Mol Toxicol. Sep-Oct 2010;24(5):313-22.
- [4]. Liuqin Yang, et al. Sodium nitroprusside (SNP) sensitizes human gastric cancer cells to TRAIL-induced apoptosis. Int Immunopharmacol. 2013 Oct;17(2):383-9.
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Caution: Product has not been fully validated for medical applications. For research use only.

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