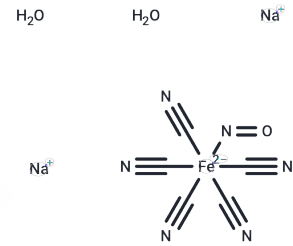


Nitroprusside disodium dihydrate

Chemical Properties

CAS No. : 13755-38-9
 Formula: $C_5H_4FeN_6Na_2O_3$
 Molecular Weight: 297.95
 Storage: Powder: $-20^{\circ}C$ for 3 years | In solvent: $-80^{\circ}C$ for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	Nitroprusside disodium dihydrate (Sodium Nitroprusside Dihydrate) is a potent vasodilator working through releasing NO spontaneously in blood.
Targets(IC50)	Autophagy, Guanylate cyclase
In vitro	Sodium Nitroprusside is a potent vasodilator. Sodium nitroprusside has potent vasodilating effects in arterioles and venules. Sodium Nitroprusside breaks down in circulation to release nitric oxide (NO). NO activates guanylate cyclase in vascular smooth muscle and increases intracellular production of cGMP. The end result is vascular smooth muscle relaxation, which allow vessels to dilate. [1] Sodium nitroprusside decreases the proliferation of vascular smooth muscle cells. [2]
In vivo	Sodium nitroprusside (5 mg/kg) significantly reduces the intestinal ischemiareperfusion injury as a nitric oxide donor in rats. [3]

Solubility Information

Solubility	DMSO: 20 mg/mL (67.13 mM), Sonication is recommended. H2O: 55 mg/mL (184.59 mM), Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.71 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0671 mL	0.3356 mL	0.6713 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Wink DA, et al. Arch Biochem Biophys, 1996, 331(2), 241-8.

Garg UC, et al. J Clin Invest, 1989, 83(5), 1774-7.

Namazi H. Clinics (Sao Paulo), 2008, 63(3), 405.

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