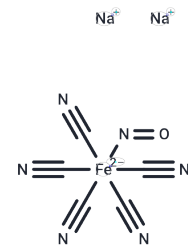


Sodium Nitroprusside

Chemical Properties

CAS No. : 14402-89-2
 Formula: $\text{Na}_2\text{Fe}(\text{CN})_5\text{NO}$
 Molecular Weight: 261.92
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	Sodium Nitroprusside (Ro 21-2498) is a potent vasodilator, releasing in blood with no spontaneously.
Targets(IC50)	RAAS,Others
In vitro	Administering 5 mg/kg of sodium nitroprusside, acting as a nitric oxide donor, effectively mitigates intestinal ischemia-reperfusion injury in rats.
In vivo	Sodium nitroprusside inhibits the proliferation of vascular smooth muscle. As an effective vasodilator, it exhibits pronounced dilation effects particularly in the arterioles and venules. During circulation, sodium nitroprusside decomposes to release nitric oxide (NO), which activates guanylate cyclase in vascular smooth muscle and augments intracellular cyclic guanosine monophosphate (cGMP) production, promoting the relaxation of the smooth muscle and consequent vasodilation.

Solubility Information

Solubility	H ₂ O: 100 mg/mL (381.8 mM),Sonication is recommended. DMSO: 55 mg/mL (209.99 mM),Sonication is recommended. (< 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 (7.64 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	3.818 mL	19.0898 mL	38.1796 mL
5 mM	0.7636 mL	3.818 mL	7.6359 mL
10 mM	0.3818 mL	1.909 mL	3.818 mL
50 mM	0.0764 mL	0.3818 mL	0.7636 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.

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