

Piloty's Acid

Chemical Properties

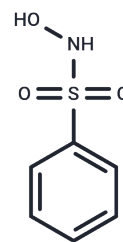
CAS No. : 599-71-3

Formula: C₆H₇NO₃S

Molecular Weight: 173.19

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	Nitric Oxide (NO) is a free radical gas that is involved in a variety of biological processes including regulation vascular tone, neuronal signaling, and host defense. Nitroxyl (HNO) is the one electron reduced form of nitric oxide. Piloty's acid is one of the best known and most widely used HNO donors. Under basic conditions Piloty's acid decomposes to HNO and benzenesulfinate anion. The rate of HNO release at pH 7 is very slow (t = 5,500 minutes) making its use most effective above pH 8.0. The half-life of Piloty's acid decreases with an increase in pH to 561, 90, and 33 minutes at pH 8.0, 9.0, and 10.0, respectively. Piloty's acid also inhibits yeast aldehyde dehydrogenase with an IC ₅₀ or 48 μM.
Targets(IC ₅₀)	Others

Solubility Information

Solubility	DMF: 30 mg/mL (173.22 mM),Sonication is recommended. DMSO: 20 mg/mL (115.48 mM),Sonication is recommended. Ethanol: 30 mg/mL (173.22 mM),Sonication is recommended. PBS (pH7.2): 2 mg/mL (11.55 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.774 mL	28.870 mL	57.7401 mL
5 mM	1.1548 mL	5.774 mL	11.548 mL
10 mM	0.5774 mL	2.887 mL	5.774 mL
50 mM	0.1155 mL	0.5774 mL	1.1548 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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