

Nitrosoglutathione

Chemical Properties

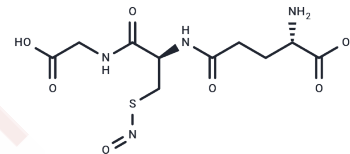
CAS No. : 57564-91-7

Formula: C10H16N4O7S

Molecular Weight: 336.32

Storage: Store at low temperature, Keep away from moisture
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	Nitrosoglutathione (GSNO) is an endogenous transnitrosation donor involved in S-nitrosation of a variety of cellular proteins. GSNO, an exogenous NO donor and substrate of rat alcohol dehydrogenase class III isoenzyme, inhibits cerebral angiotensin II-dependent and -independent AT1 receptor responses.
Targets(IC50)	RAAS, Endogenous Metabolite, NO Synthase
In vitro	GSNO completely abolished the AngII-dependent AT1 receptor-mediated vasoconstriction of cerebral arteries. GSNO had no impact on responses to other vasoconstrictors sharing (phenylephrine, U46619) or not (5-HT) the same signalling pathway[1].
In vivo	Elevated blood pressure, proteinuria, and intrauterine growth restriction associated with PE were induced in Sprague-Dawley rats using L-NAME. These were partially reversed with the use of GSNO[3].

Solubility Information

Solubility	DMSO: 16.67 mg/mL (49.57 mM), Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble) H2O: 12.5 mg/mL (37.17 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	2.9734 mL	14.8668 mL	29.7336 mL
5 mM	0.5947 mL	2.9734 mL	5.9467 mL
10 mM	0.2973 mL	1.4867 mL	2.9734 mL
50 mM	0.0595 mL	0.2973 mL	0.5947 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

- Marie-Lynda Bouressam, et al. S-nitrosoglutathione inhibits cerebrovascular angiotensin II-dependent and -independent AT 1 receptor responses: A possible role of S-nitrosation. *Br J Pharmacol.* 2019 Jun;176(12):2049-2062.
- Eva Nozik-Grayck, et al. Pulmonary vasoconstriction by serotonin is inhibited by S-nitrosoglutathione. *Am J Physiol Lung Cell Mol Physiol.* 2002 May;282(5):L1057-65.
- Caneta Brown, et al. The effects of S-nitrosoglutathione and S-nitroso-N-acetyl-D, L-penicillamine in a rat model of pre-eclampsia. *J Nat Sci Biol Med.* 2013 Jul;4(2):330-5.
- D E Jensen, et al. S-Nitrosoglutathione is a substrate for rat alcohol dehydrogenase class III isoenzyme. *Biochem J.* 1998 Apr 15;331 (Pt 2)(Pt 2):659-68.

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