Product Information

S-Nitroso-L-glutathione
Item No. 82240

CAS Registry No.: 57564-91-7
Formal Name: N-(N-L-γ-glutamyl-S-nitroso-L-cysteinyl)-glycine
Synonym: GSNO
MF: C_{10}H_{16}N_{4}O_{7}S
FW: 363.3
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A crystalline solid

Laboratory Procedures
For long term storage, we suggest that S-Nitroso-L-glutathione (GSNO) be stored as supplied at -20°C. It should be stable for at least one year.

GSNO is supplied as a crystalline solid. A stock solution may be made by dissolving the GSNO in an organic solvent purged with an inert gas. GSNO is soluble in organic solvents such as DMSO. The solubility of GSNO in DMSO is approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of GSNO can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of GSNO in PBS (pH 7.2) is approximately 35 mg/ml. To initiate nitric oxide (NO) release, add the necessary amount of GSNO stock solution to buffer containing thiols, such as glutathione or ascorbate. NO release can also be initiated by adding the GSNO stock solution to a platelet lysate.1 We do not recommend storing the aqueous solution for more than one day.

GSNO is an S-nitrosothiol NO donor based on naturally-occurring glutathione. It is a potent smooth muscle relaxant and inhibitor of platelet aggregation. Its stability in solution varies from seconds to hours depending on temperature, buffer composition, and metal content.1-4

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/82240

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals herein. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery. Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about its possible existence.

Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

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