

Product Information

S-Nitrosoglutathione

Catalog Number **N4148**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

CAS RN 57564-91-7
Synonym: GSNO

Product Description

Molecular Formula: $\text{C}_{10}\text{H}_{16}\text{N}_4\text{O}_7\text{S}$
Molecular Weight: 336.32

This product is a NO-generating compound *in vivo*, smooth muscle relaxant and vasodilator, and it inhibits platelet activation.^{1,2} It is also reported to be a substrate for γ -glutamyl transpeptidase, which hydrolyzes the γ -glutamyl moiety of glutathione to give glutamate and cysteinylglycine. This enzyme catalyzes the decomposition of S-nitrosoglutathione to S-nitrosocysteinylglycine. The K_M value for S-nitrosoglutathione is $28\text{ }\mu\text{M}$.³

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

This product is soluble in water (20 mg/ml).

Storage/Stability

Store the product at $-20\text{ }^{\circ}\text{C}$.

GSNO decomposes rapidly in solution to glutathione disulfide. The decomposition rate is $\sim 5\%$ per hour in water at room temperature.

References

1. Jansen, A. et al., The relaxant properties in guinea pig airways of S-nitrosothiols. *J. Pharmacol. Exp. Ther.*, **261(1)**, 154-160 (1992).
2. Radomski, M.W. et al., S-nitroso-glutathione inhibits platelet activation *in vitro* and *in vivo*. *Br. J. Pharmacol.*, **107(3)**, 745-749 (1992).
3. Hogg, N. et al., S-Nitrosoglutathione as a substrate for gamma-glutamyl transpeptidase. *Biochem. J.*, **323(Pt. 2)**, 477-481 (1997).

RC,HLD,RXR,RGC,MAM 08/15-1