

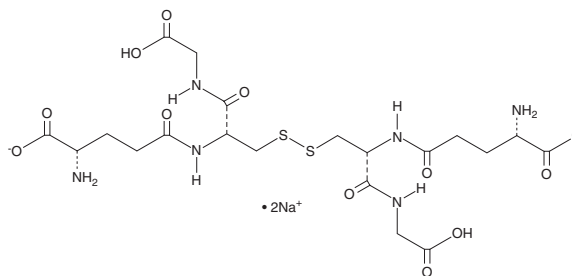
PRODUCT INFORMATION



L-Glutathione, oxidized (sodium salt)

Item No. 15491

CAS Registry No.: 103239-24-3
Formal Name: L-γ-glutamyl-L-cysteinyl-bimol-(2→2')-disulfide-glycine, disodium salt
Synonym: Glutathione Disulfide, GSSG
MF: C₂₀H₃₀N₆O₁₂S₂ • 2Na
FW: 656.6
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

L-Glutathione, oxidized (sodium salt) is supplied as a crystalline solid. Aqueous solutions of L-glutathione, oxidized (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of L-glutathione, oxidized (sodium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

L-Glutathione, oxidized (GSSG) is an oxidized form of the antioxidant L-glutathione (GSH; Item No. 10007461).¹ It is produced upon reduction of hydroperoxide by glutathione peroxidases (GPXs) and can be reduced back to GSH through the NADPH-dependent enzyme glutathione reductase (GR).^{2,3} The reduced glutathione-to-oxidized glutathione (GSH/GSSG) ratio has been used as an indicator of oxidative stress.²

References

1. Pompella, A., Visvikis, A., Paolicchi, A., *et al.* The changing faces of glutathione, a cellular protagonist. *Biochem. Pharmacol.* **66(8)**, 1499-1503 (2003).
2. Johnson, F.D., Ferrarone, J., Liu, A., *et al.* Characterization of a small molecule inhibitor of disulfide reductases that induces oxidative stress and lethality in lung cancer cells. *Cell Rep.* **38(6)**, 110343 (2022).
3. Imai, H. and Nakagawa, Y. Biological significance of phospholipid hydroperoxide glutathione peroxidase (PHGPx, GPx4) in mammalian cells. *Free Radic. Biol. Med.* **34(2)**, 145-169 (2003).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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