

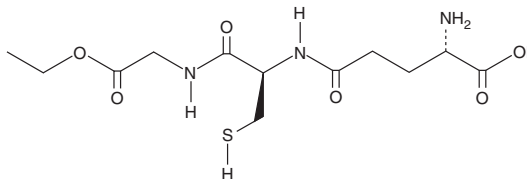
PRODUCT INFORMATION



Glutathione ethyl ester

Item No. 14953

CAS Registry No.: 92614-59-0
Formal Name: L-γ-glutamyl-L-cysteinyl-glycine,
3-ethyl ester
Synonym: GSH ethyl ester
MF: C₁₂H₂₁N₃O₆S
FW: 335.4
Purity: ≥95%
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

Glutathione ethyl ester (GSH ethyl ester) is supplied as a crystalline solid. A stock solution may be made by dissolving the GSH ethyl ester in the solvent of choice. GSH ethyl ester is soluble in water at a concentration of approximately 20 mg/ml.

For biological experiments, we suggest that organic solvent-free aqueous solutions of GSH ethyl ester be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of GSH ethyl ester in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

GSH serves as a nucleophilic co-substrate to glutathione transferase in the detoxification of xenobiotics and is an essential electron donor to glutathione peroxidases in the reduction of hydroperoxides.¹⁻³ GSH ethyl ester is a cell-permeable derivative of GSH that undergoes hydrolysis by intracellular esterases to release GSH.⁴ Effective transport of GSH ethyl ester has been used to protect cells against damage from radiation, oxidants, and various toxic compounds including heavy metals.^{5,6}

References

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3. Arias, I.M. and Jakoby, W.B., editors, Raven Press, New York, (1976).
4. Wellner, V.P., Anderson, M.E., Puri, R.N., et al. *Proc. Natl. Acad. Sci. USA* **81(15)**, 4732-4735 (1984).
5. Zeevalk, G.D., Manzano, L., Sonsalla, P.K., et al. *Exp. Neurol.* **203(2)**, 512-520 (2007).
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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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