

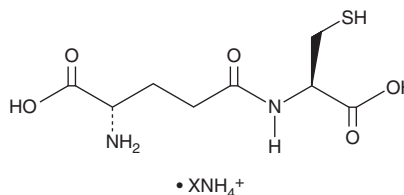
PRODUCT INFORMATION



γ -Glu-Cys (ammonium salt)

Item No. 30569

Formal Name:	L- γ -glutamyl-L-cysteine, ammonium salt
Synonym:	γ -Glutamylcysteine
MF:	$C_8H_{14}N_2O_5S \cdot XNH_4$
FW:	250.3
Purity:	$\geq 95\%$ (mixture of isomers)
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

γ -Glu-Cys (ammonium salt) is supplied as a crystalline solid. Aqueous solutions of γ -Glu-Cys (ammonium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of γ -Glu-Cys (ammonium 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

γ -Glu-Cys is an intermediate in glutathione (GSH) synthesis.¹ It is formed by ATP-dependent condensation of cysteine and glutamate by γ -glutamylcysteine synthetase. γ -Glu-Cys is also an essential component of phytochelatins, the heavy metal detoxifying enzymes in plants.²

References

1. Anderson, M.E. and Meister, A. Transport and direct utilization of γ -glutamylcyst(e)ine for glutathione synthesis. *Proc. Natl. Acad. Sci. USA* **80(3)**, 707-711 (1983).
2. Grill, E., Löffler, S., Winnacker, E.-L., *et al.* Phytochelatins, the heavy-metal-binding peptides of plants, are synthesized from glutathione by a specific γ -glutamylcysteine dipeptidyl transpeptidase (phytochelatin synthase). *Proc. Natl. Acad. Sci. USA* **86(18)**, 6838-6842 (1989).

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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