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 Author:  [ADVANCED](#) | Volume  Page   
 Keyword:   |   

[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

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[\[PDF \(238K\)\]](#) [\[References\]](#)

## Simultaneous Determination of Glutathione, $\gamma$ -Glutamylcysteine and Cysteine in Commercial Yeast Extract by HPLC with Fluorimetric Detection

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A rapid and precise method for the simultaneous determination of glutathione (GSH),  $\gamma$ -glutamylcysteine and cysteine in commercial GSH-enriched yeast extract (GSH-YE) is described. Isocratic separation of the above compounds was performed using an aminopropyl silica column. Post-column derivatization with *N*-acridinylmaleimide (NAM) was performed followed by fluorimetric detection. This HPLC method could be applied for the determination of GSH,  $\gamma$ -glutamylcysteine and cysteine in commercial yeast extract. All of the commercial GSH-YE contained  $\gamma$ -glutamylcysteine (0.057-0.50 g/100 g) and cysteine (0.020-1.71 g/100 g).

**Keywords:** [glutathione \(GSH\)](#),  [\$\gamma\$ -glutamylcysteine](#), [cysteine](#), [yeast extract](#), [HPLC](#), [N-acridinylmaleimide \(NAM\)](#), [post-column derivatization](#)

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