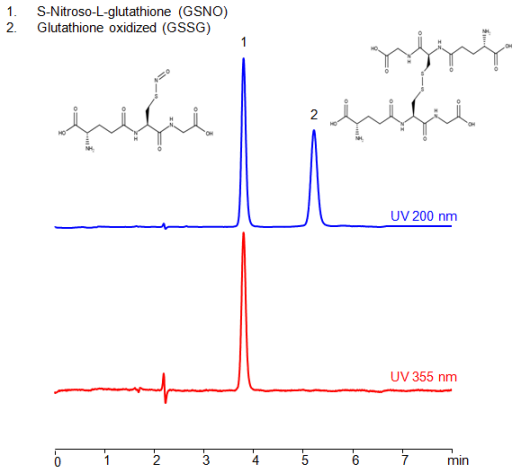
HPLC Method for Separation of S-Nitroso-L-glutathione and Glutathione oxidized on Primesep 100 Column



Column:	Primesep 100
Column size:	4.6 × 150 mm, 5 µm
Column part number:	100-46.150.0510
Mobile phase:	MeCN – 20 %
Buffer:	H_2SO_4 – 0.2%
Flow rate:	1.0 mL/min
Detection:	UV 200, 355 nm

Separation type: Liquid Chromatography Mixed-mode

Both S-Nitroso-L-glutathione (GSNO) and oxidized glutathione (GSSG) are forms of glutathione, a tripeptide consisting of the amino acids glutamic acid, cysteine, and glycine. Glutathione plays a significant role in maintaining the redox (reduction-oxidation) balance in cells, but GSNO and GSSG each have unique characteristics:

Each form of glutathione plays a unique role in cell signaling and defense mechanisms. While they are related, the specific effects of GSNO and GSSG within cells can be quite different due to their distinct chemical structures and reactivities.

These compounds can be retained, separated, and analyzed using a reverse-phase Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended column. The mobile phase for this method consists of water, acetonitrile (MeCN), and Sulfuric acid, which serves as a buffer. This analytical method can be

Method Parameters

Column	Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN -10%
Buffer	H2SO40.2%
Flow Rate	1.0 mL/min
Detection	UV 200, 355 nm

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Quelle: https://sielc.com/hplc-separation-gsno-sssg

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