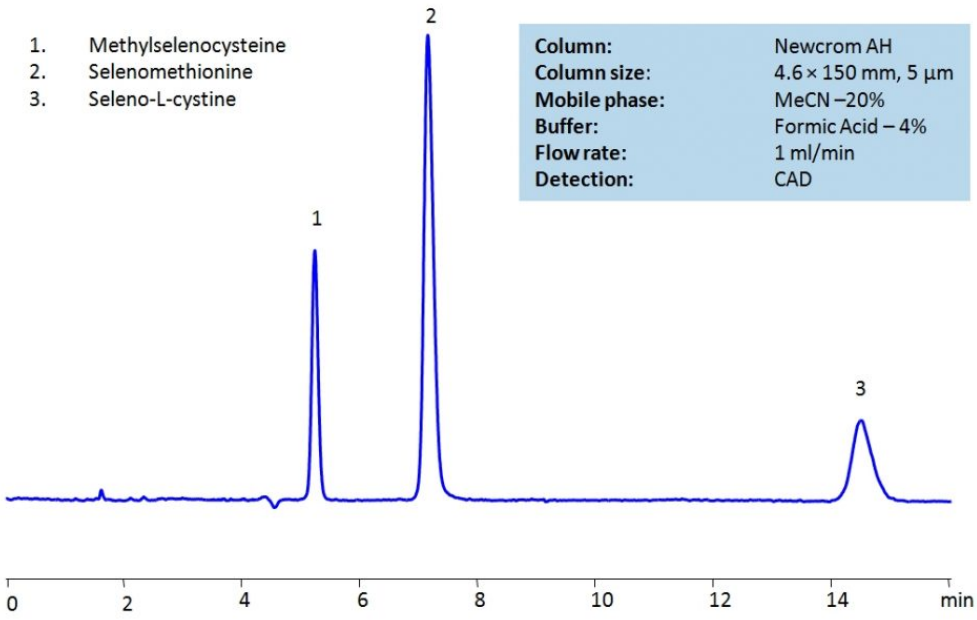
HPLC Determination of Seleno Amino Acids on Newcrom AH Column



High Performance Liquid Chromatography (HPLC) Method for Analysis of Seleno-L-cystine , Selenomethionine , Methylselenocysteine .

Methylselenocysteine is used in chemotherapy to induce apoptosis (cell death) of the cancerous cells. Methylselenocysteine is an amino acid with antioxidant properties and a main source of selenium in several foods. Selenocysteine is an analog of cysteine with the selenium replacing sulfur. It has been used as a radioactive tracer. All three analytes are zwitterions and have similar structures which can present difficulties in reversed-phase separation in HPLC. By using a mixed mode Newcrom AH column which has ion-exchange properties in addition to hydrophobic properties allows the separation of the seleno amino acids with an MS-compatible mobile phase of water and acetonitrile (ACN) with formic acid buffer.

Method Parameters

Column	Newcrom AH, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN – 20%
Buffer	Formic Acid – 4%
Flow Rate	1.0 mL/min
Detection	CAD

Quelle: https://sielc.com/hplc-determination-of-seleno-amino-acids