HILIC Separation of Carboxymethylcysteine and Betaine

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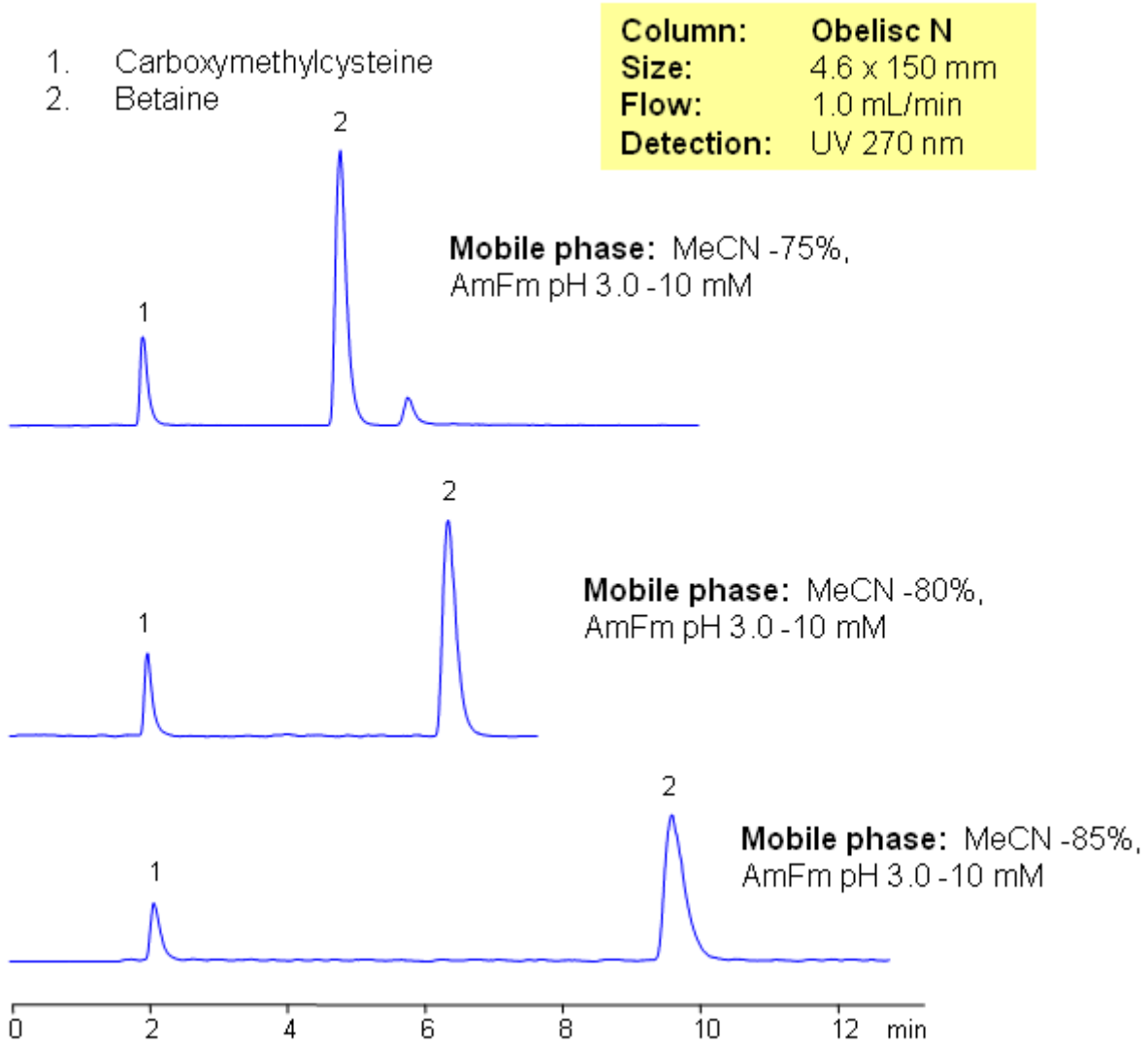
Chromatogram



Description

In this HPLC method, betaine and carboxymethylcysteine are separated by HILIC mixed-mode mechanism. Betaine and carboxymethylcysteine are very hydrophilic compounds which are not retained on reverse phase columns. Compounds are separated by combination of HILIC and ion-exchange mechanisms. In HIILIC mode, Obelisc N columns allow operating at lower organic concentration for improved solubility of analytes. Method can be used for quantitative or qualitative analysis of betaine and carboxymethylcysteine using ESLD or LC/MS detection. Betaine in chemistry is any neutral chemical compound with a positively charged cationic functional group such as ammonium ion or phosphonium ion (generally: onium ions) which bears no hydrogen atom and with a negatively charged functional group such as a carboxylate group which may not be adjacent to the cationic site. Historically the term was reserved for tetramethylglycine only.