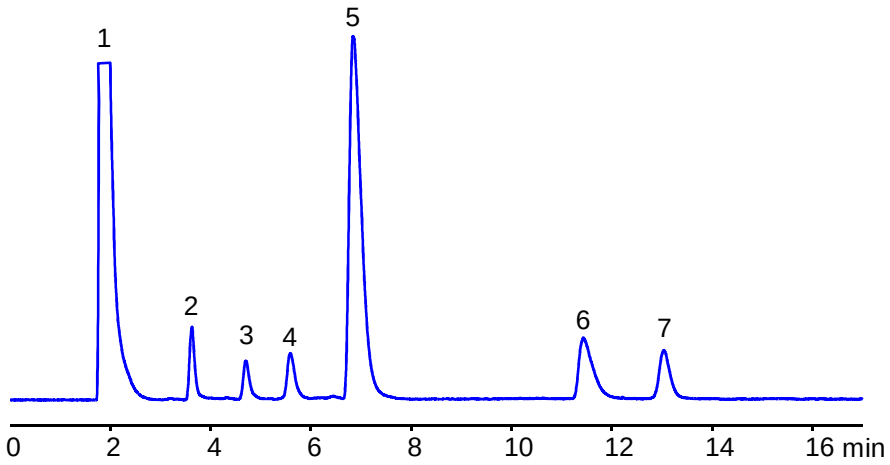
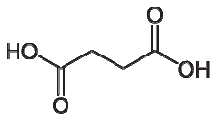
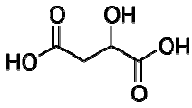
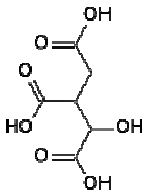
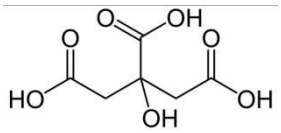
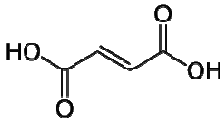
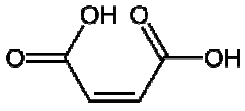
Separations of Compounds in TCA Cycle on Primesep D Column

Column:	**Primesep D**
Part number:	**D-46.150.0510**
Column size:	4.6 X 150mm, 5 um, 100A
Mobile phase:	MeCN gradient 10% in 12 minutes then a 5 minute hold, AmFm pH 3.0 gradient from 30mM to 90mM in 12 minutes with a 5 minute hold
Flow rate:	1.0 ml/min
Detection:	ELSD, 50 ^{o}C



1	**Sodium**
2	**Succinic acid** 
3	**Malic acid** 
4	**Isocitric acid** 
5	**Citric acid** 
6	**Fumaric acid** 
7	**Maleic acid** 

Application Comments

Tricarboxylic acid cycle (TCA) is an important biological process occurring in the body. It is a key metabolic pathway that involves carbohydrate, fat and protein metabolism. Organic acids involved in TCA cycle are polar hydrophilic compounds with limited retention on traditional reversed-phase columns. We have developed a robust method of separation of these compounds on our Primesep D mixed-mode reversed-phase anion-exchange column. This column can be used for analysis of compounds of TCA cycle, as well as other hydrophilic acids, in various matrices, including biofluids. Primesep D column is designed for direct analysis of biofluids [1] without any sample preparation.

1. http://www.sielc.com/Technology_DirectPlasmaAnalysis.html

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