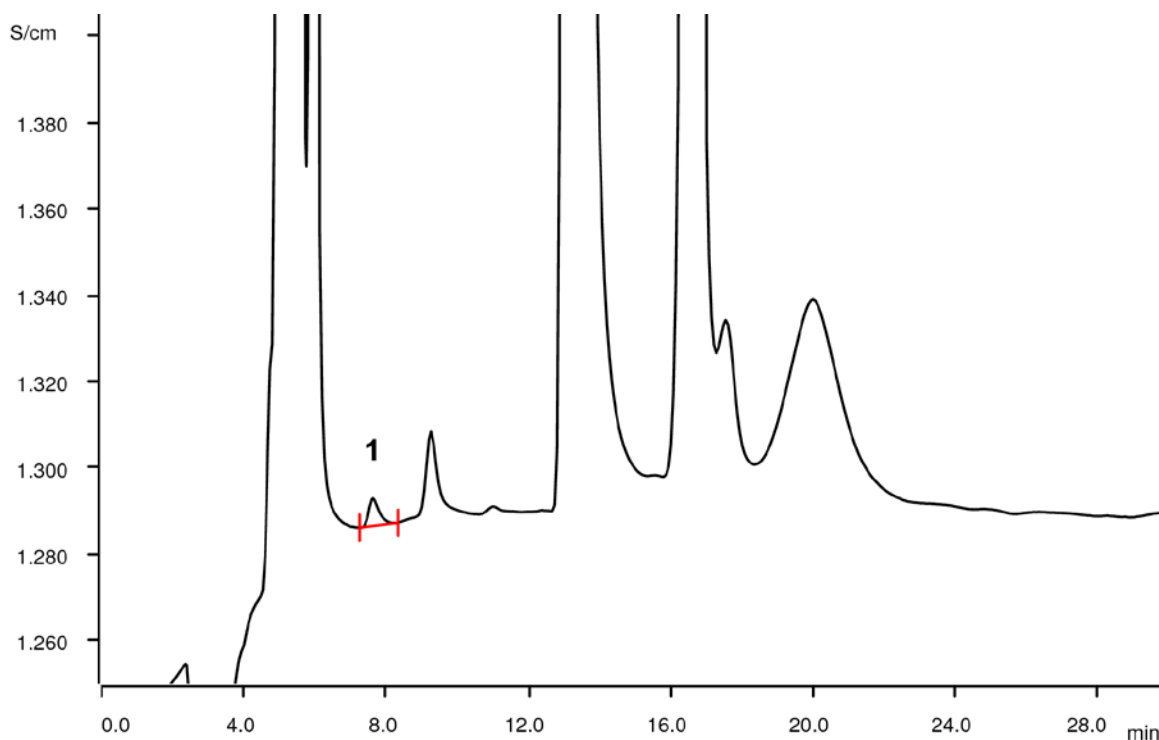


# Nitrite in Eltrombopag applying Inline Matrix elimination



Eltrombopag is a pharmaceutical agent used in certain conditions of thrombocytopenia. As such it is an orphan drug. The molecule of Eltrombopag is a protonated aromatic carboxyl compound. Under ion chromatography condition (alkaline eluent) it could be deprotonated and therefore blocking ion exchanger sites on the column. This results in decreasing retention times over time. To avoid this, Inline Matrix Elimination is applied, where the protonated Eltrombopag is washed off the preconcentration column prior to the injection. Nitrite is then analyzed with conductivity detection after sequential suppression.

## Results

	Sample (spiked with 5 µg/L nitrite)	Conc. in solution [µg/L]	Conc. in sample [mg/kg]
1	Nitrite	6.3	0.63

Other peaks are not identified.

## Sample

Eltrombopag

## Sample preparation

0.5 g of sample dissolved in 50 mL of 10% acetone.  
Metrohm Inline Matrix Elimination is applied.

## Columns

Metrosep A Supp 16 - 150/4.0	6.1031.420
Metrosep A Supp 16 Guard/4.0	6.1031.500
Metrosep A PCC 2/4.0	6.1006.330

## Solutions

Eluent	7.5 mmol/L sodium carbonate 0.75 mmol/L sodium hydroxide
Suppressor regenerant	100 mmol/L sulfuric acid
Rinsing	STREAM
Matrix elimination	Ultrapure water

## Analysis

Conductivity detection after sequential suppression

## Instrumentation

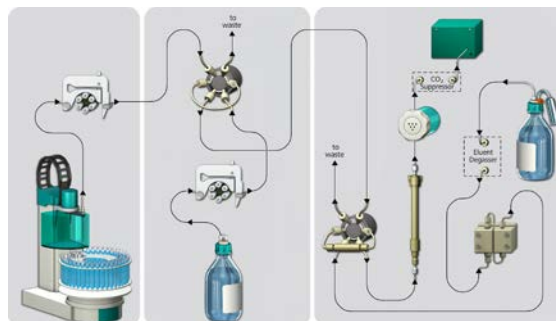
940 Professional IC Vario ONE/Ses/PP	2.940.1500
IC Conductivity Detector	2.850.9010
858 Professional Sample Processor	2.858.0030
MSM Rotor A	6.2832.000
Adapter sleeve for Suppressor Vario	6.2842.020

## Parameters

Flow rate	0.8 mL/min
Injection volume	200 µL
P <sub>max</sub>	20 MPa
Recording time	30 min
Column temperature	45 °C



Setup of metrohm Inline Matrix Elimination



[www.metrohm.com](http://www.metrohm.com)

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