Metanephrines in Urine

Application Note

Bioanalysis

Introduction

An HPLC separation of four metanephrines in a urine sample was accomplished with an Agilent Polaris C18-A column.

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Conditions

Column	Agilent Polaris C18-A, 4.6 × 150 mm, 5 µm (p/n A2000150X046)
Sample	Standard and patient urine sample
Sample concentration	Urine standard - normetanephrine 3543 nmol/L, metanephrine 1496 nmol/L, 3-methoxytyramine 1638 nmol/L, internal standard (4-O-methyldopamine)
Mobile phase	0.1 M KH_2PO_4, pH 6.0, 20 mg/L 1-octanesulfonic acid, sodium salt, 1 g/L sodium EDTA, 6% acetonitrile
Flow rate	1.0 mL/min
Injection volume	5 µL
Temperature	30 °C
Detector	ECD, Antec Decade, +0.63 V Glassy Carbon – Ag/AgCl

Peak identification (for both figures)

1. Normetanephrine
2. Metanephrine
3. 3-methoxytyramine (3-MT)
4. 4-O-methyldopamine (IS)

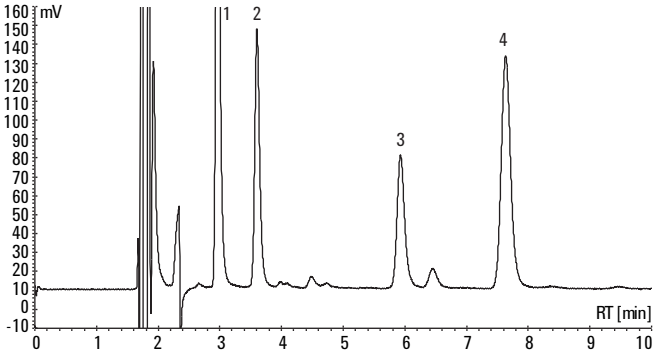

Figure 1. Metanephrines in urine with an Agilent Polaris C18-A column and electrochemical detection on a standard urine sample.

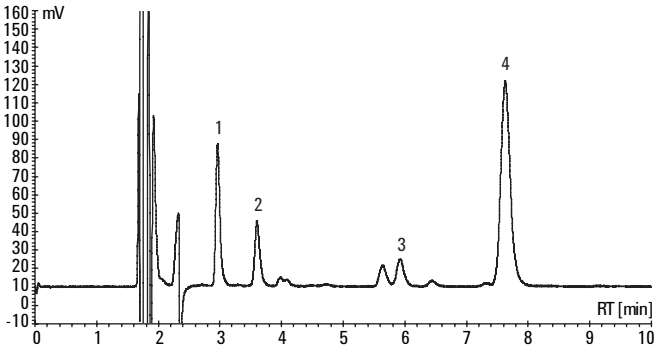

Figure 2. Metanephrines in urine with an Agilent Polaris C18-A column and electrochemical detection on a patient urine sample.

For More Information

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