

EPO (Erythropoietin)

Determination of Erythropoietin using Capillary Electrophoresis and Laser Induced Fluorescence Detection

Instruments:

Capillary Electrophoresis: Agilent CE
Detector: Picometrics ZETALIF 2000 detector
Laser: DPSS Laser 266 nm, 5 mW

Sample:

Standard Solution in water

Reagents:

None (Naturally fluorescent compounds)

Methods:

Capillary: 50 µm ID, 56 cm effective length (tot. length 65 cm)

- Conditions A

Buffer: 50% methanol, 1% formic acid, 49% doubly distilled water

Voltage: 30 kV (8µA)

Injection: 15 sec. at 50 mBar

- Conditions B

Buffer: 200 mM Sodium Phosphate buffer (pH = 4.0)

Voltage: -15 kV (70 µA)

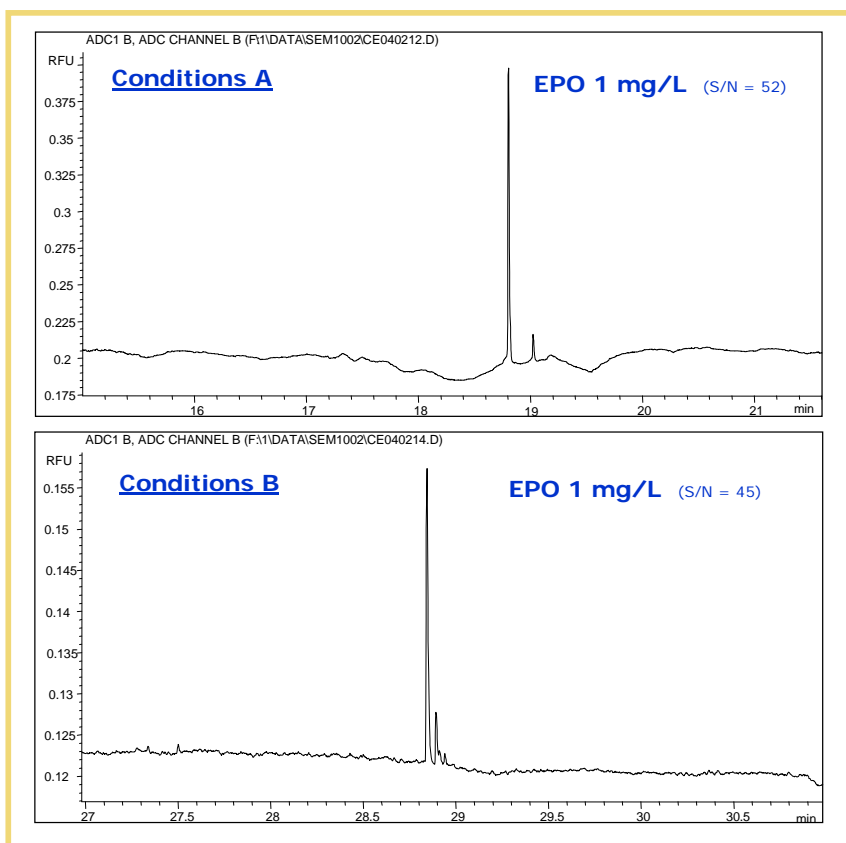
Injection: 15 sec. at 50 mBar

Additional information:

- Estimated injected volume: approx. 22 nL for both methods
- MW of EPO 30 000 Daltons

Limit of Detection*:
0.1 mg/L (75 Attomoles injected)

* Estimated for a S/N of 3



Source: Picometrics application lab. 03/2002