

# Peptides

Separation and detection of FMOc labeled peptides by capillary electrophoresis and Laser Induced Fluorescence.

## Instruments:

Capillary Electrophoresis: Agilent CE  
Detector: Picometrics ZETALIF detector  
Laser: DPSS Laser 266 nm, 2 mW

## Sample:

Peptide standards diluted in acetone

## Reagents:

Derivatization agent: 9-fluorenylmethyl chloroformate (FMOC)

## Methods:

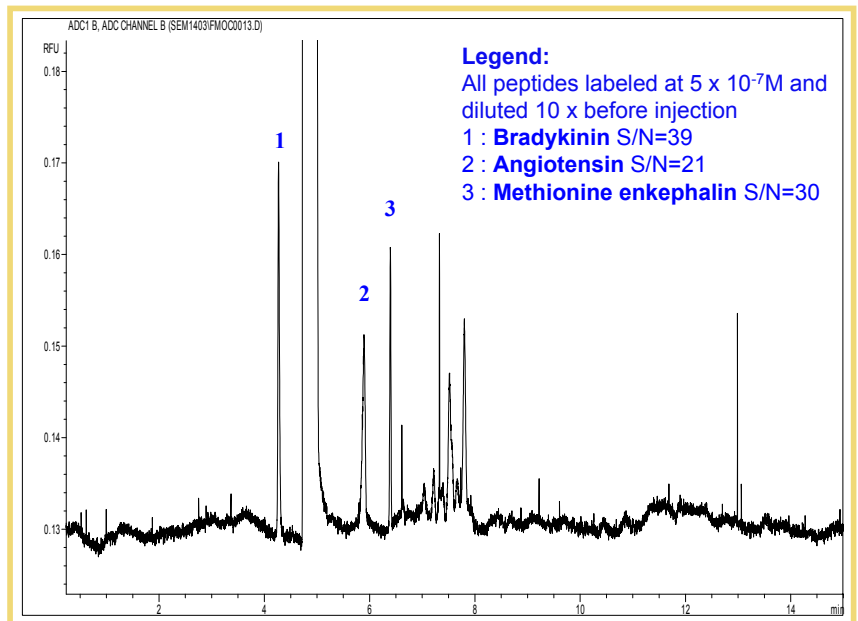
Capillary: 50  $\mu$ m ID, 45 cm effective length (total length 60 cm)  
Buffer: Boric acid 15 mM adjusted to pH=9.2 with NaOH 1M  
Voltage: +18 kV (10  $\mu$ A)  
Injection: 20 sec. at 50 mBar (estimated injected volume: approximately 30 nL)

**Limit of Detection\*:**

**4 to 8 nM**

**(0.12/0.24 femtomoles detected)**

\* Estimated for a S/N of 3



Source: Picometrics application lab. 06/2003

\* The aim of this preliminary work was to achieve peptide labeling at low concentration, followed by LIF detection. Derivatization is shown to take place at least at the  $5 \times 10^{-7}$  M level for the peptides of interest.