



## Product Information

### Peptide Calibration Kit for Capillary Electrophoresis

Product Codes **PEP-CE, P 2693, P 2188,  
and W 2629**

## TECHNICAL BULLETIN

### Product Description

Capillary Electrophoresis has become a powerful analytical separation technique for analysis of peptides in solution. The Peptide Calibration Kit is designed to provide reagents and conditions for peptide separations, purity determination for synthetic peptides, calibrations of capillary electrophoresis instruments, and tests for the performance of capillaries.

### Components

Peptide Standards (Product Code P 2693)	1 Vial
Peptide Separation Buffer (Product Code P 2188)	50 ml
Washing Solution (Product Code W 2629)	100 ml

### Preparation Instructions

#### Peptide Standards

1. Add 50  $\mu$ l of the Peptide Separation Buffer (Product Code P 2188) and 450  $\mu$ l of deionized water to the vial of Peptide Standards (Product Code P 2693).
2. Vortex the vial for a few seconds and then degas the solution. The solution of Peptide Standards is ready to use.
3. Aliquot the unused portion and immediately freeze at  $-20^{\circ}\text{C}$  or below.

#### Unknown Peptide Samples

1. Prepare each peptide sample at a concentration of 50-100  $\mu\text{g}/\text{mg}$  in a 10-fold dilution of Peptide Separation Buffer (Product Code P 2188).
2. Vortex for a few seconds and then degas the solution. The sample is ready to use.
3. Aliquot the unused portion and immediately freeze at  $-20^{\circ}\text{C}$  or below.

### Procedure

#### Running Conditions

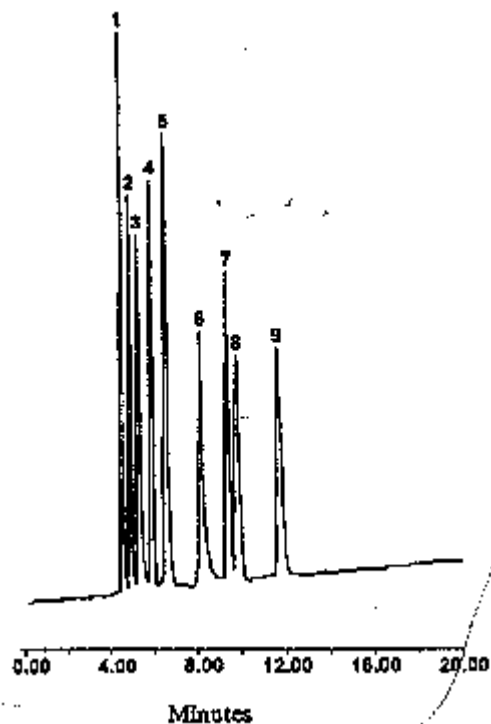
1. The Peptide Separation Buffer (Product Code P 2188) and Washing Solution (Product Code W 2629) should be degassed before use.
2. Follow the manufacturer's instructions to assemble the capillary column to be used.
3. For an electrophoretic load, use 10 kV for 8 seconds or for a pressure load, use 20 psi/second.
4. Run the solution of Peptide Standards at 10 kV constant voltage, positive to negative polarity, for 15 minutes.
5. Detection system: UV, 200 nm
6. Column size: 25  $\mu\text{m}$  x 24 cm, coated
7. Before each sample application, perform the following purge cycles:  
60 seconds with deionized water  
60 seconds with Washing Solution  
60 seconds with deionized water  
60 seconds with Peptide Separation Buffer

After the completion of the run, perform the following purge cycles:

- 60 seconds with deionized water
- 60 seconds with Washing Solution
- 60 seconds with deionized water
- 3 minutes with dry nitrogen gas

Figure 1  
A Typical Electropherogram of Peptide Standards on BioRad BioFocus 3000 system. Peptide Standards contain approximately 25 µg of each of the following 9 peptides:

1. Bradykinin
2. Bradykinin Fragment 1-5
3. Substance P
4. [Arg<sup>8</sup>]-Vasopressin
5. Luteinizing Hormone Releasing Hormone
6. Bombesin
7. Leucine Enkephalin
8. Methionine Enkephalin
9. Oxytocin



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