

# PYD/DPD HPLC CALIBRATOR

Pyridinoline and Deoxypyridinoline

Research Use Only - Analytical and performance  
Characteristics are not established.

Store at 2-8°C

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Made in USA



Catalog Number 8004

Read the entire product insert thoroughly before using this reagent. The Pyd/Dpd Calibrator should be stored at 2-8°C until use.

## **INTENDED USE**

The Pyd/Dpd Calibrator is designed for the calibration of HPLC equipment used in the determination of pyridinoline (PYD) and deoxypyridinoline (DPD) concentration in urine samples. They are provided at high purity and a standard concentration for calibration of the HPLC to allow laboratories to compare Pyd/Dpd results.

## **BACKGROUND ON PYD/DPD HPLC CALIBRATOR**

The Pyd/Dpd Calibrator is provided as a mixture of Pyd and Dpd in a 0.2M acetic acid solution. Molar extinction coefficients were obtained using highly purified samples of Pyd and Dpd. The molar extinction coefficients of Pyd and Dpd in 0.1 N HCl at 295 nm ( $5700$  and  $5000$   $M^{-1}$ ,  $cm^{-1}$ , respectively) were used to calculate concentrations of Pyd and Dpd. Purity was estimated to be 99.7% from elemental analysis.

## **MATERIALS**

<u>Contents</u>	<u>Qty/Vol</u>	<u>Part No.</u>
Pyd/Dpd Calibrator	750 $\mu$ L	4101

Material provided is sufficient for 30-60 HPLC analyses.

## **STORAGE and STABILITY**

1. Store Pyd/Dpd Calibrator at 2-8°C when not in use.
2. Pyridinoline is photosensitive; avoid prolonged exposure to light, especially direct sunlight.

## **PROTOCOL**

1. Centrifuge contents of the vial prior to opening to remove condensate from the wall and lid of the vial.
2. Inject 5-10  $\mu$ L of the Pyd/Dpd Calibrator onto reverse phase HPLC column (see reference section below).

## **WARNINGS AND PRECAUTIONS**

1. Calibrators are purified from human or bovine material and should be treated as potentially biohazardous.
2. Acetic acid is poisonous, corrosive and can cause severe burns. Avoid contact with skin, eyes, and clothing. May be fatal if swallowed. Harmful if inhaled. Combustible. Keep away from heat and flame.
3. Calibrators should be disposed of in a manner consistent with relevant regulations.
4. For Research Use Only. Analytical and performance characteristics are not established.

## **References**

Black, D., A. Duncan, and S.P. Robins. 1988. Quantitative Analysis of the Pyridinium Crosslinks of Collagen in Urine Using Ion-Paired Reverse-Phase High-Performance Liquid Chromatography. *Analytic Biochem.* 169:197-203.

Pratt, D., Y. Daniloff, A. Duncan, and S.P. Robins. 1992. Automated Analysis of the Pyridinium Crosslinks of Collagen in Tissue and Urine Using Solid-Phase Extraction and Reversed-Phase High-Performance Liquid Chromatography. *Analytic Biochem.* 207:168-175.