Creatine and Creatinine Analyzed with ELSD and UV - AppNote

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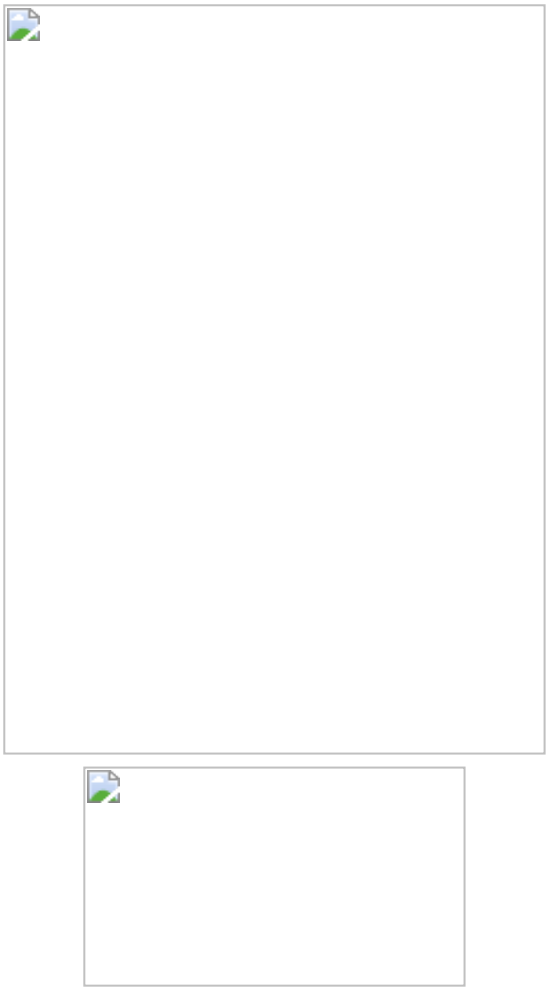
Creatine and creatinine are key biomarkers in clinical diagnostics. Their accurate separation is essential for reliable analysis. This application note describes an HPLC method using ELSD and UV detection optimized for the efficient separation and quantification of creatine and creatinine.



Peaks: **1. Creatinine, 2. Creatine**

Method Conditions:

Column: Cogent Diamond Hydride™, 4 µm, 100 Å
Catalog No.: 70000-7.5P
Dimensions: 4.6 x 75 mm

Mobile Phase: 70% Acetonitrile / 30% DI Water

Flow Rate: 1.0 mL / minute
Detection:
A: UV 210 nm
B: ELSD (Gain 8, Temp 50°C, Nitrogen: 3.5 lb)
Injection Volume: 2 uL

Sample Preparation: Creatinine (0.45 mg/mL) and Creatine (0.26 mg/mL) reference standards in diluent of 50% Acetonitrile / 50% DI Water

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Note: Creatine is stored in muscles and used for quick energy during intense activity, while creatinine is a waste product formed when creatine breaks down—making it a key marker for kidney function in medical tests.

COGENT HPLC Columns™

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