

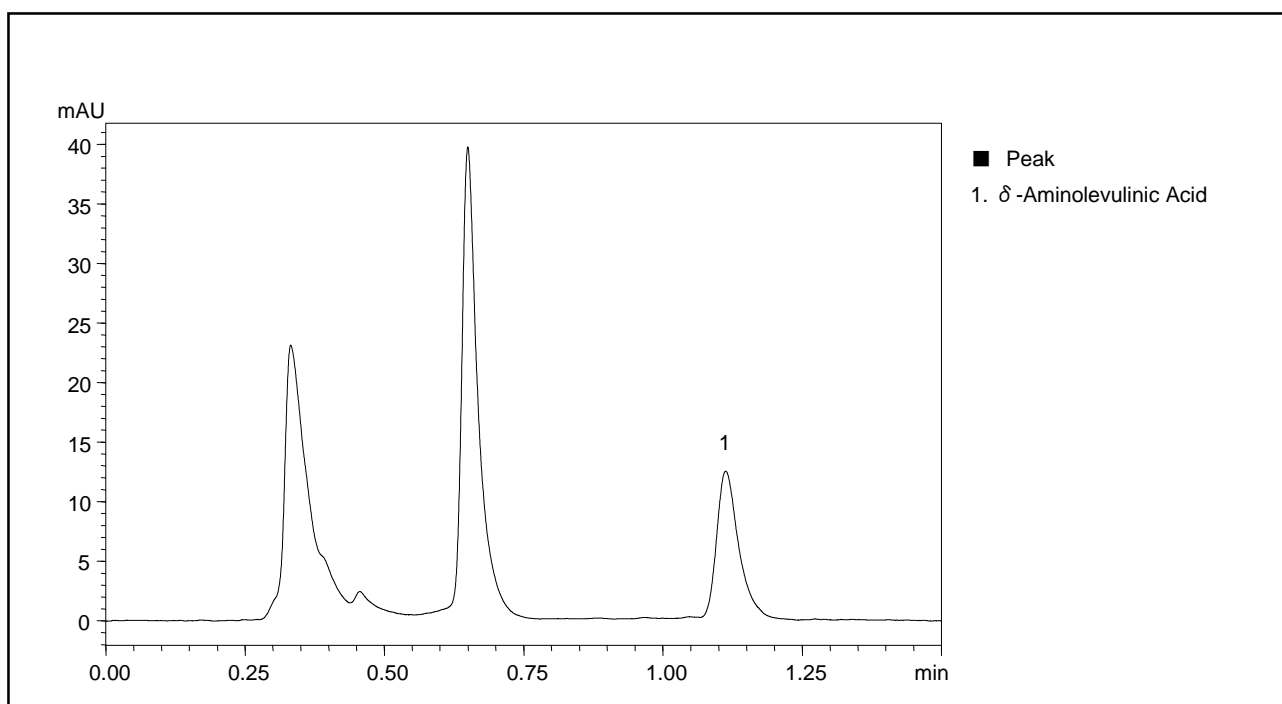
Application Data Sheet

High Performance Liquid Chromatography

No. 64

High Speed Analysis of Delta-Aminolevulinic Acid

Delta-aminolevulinic acid in urine is known as an effective marker of lead (Pb) exposure. This chromatogram shows results of a high speed separation of delta-aminolevulinic acid in urine by Prominence UFLC.



Analysis of Delta-Aminolevulinic Acid in Urine [Note]

[Sample Preparation]

- 1) 0.45 mL of 8.5% formaldehyde was added to a 20 μ L urine sample.
- 2) 3.5mL of a mixed solution of acetylacetone, ethanol, and distilled water was added to the solution from Step 1.
- 3) After heating the solution for 15 minutes in boiling water then cooling it in a water bath, the solution was injected into the HPLC system.

Note: This data was provided by BML Inc.

Analytical Conditions

Instrument	: Prominence UFLC system
Column	: Shim-pack XR-ODS (50 mm \times 3.0 mm <i>i.d.</i>)
Mobile Phase	: A) Water, B) Methanol, C) Acetic acid A / B / C = 53 / 45 / 2 (v / v / v)
Flow Rate	: 0.8mL/min
Column Temperature	: 40 $^{\circ}$ C
Detection	: Fluorescence (Ex: 363nm, Em: 473nm) with Semi-micro flow cell
Sample Volume	: 5 μ L

Note: The indicated data was not acquired using a system registered by Japanese Pharmaceutical Affairs Act.