Laboratory

Amino acid (glutamin acid) evaluation with PiCOEXPLORER

USHIO

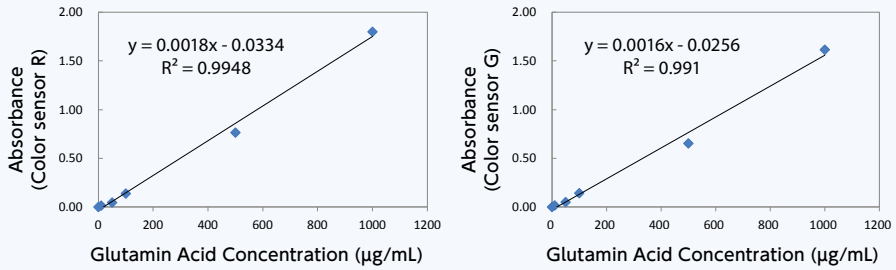
Overview An amino acid (glutamic acid) was quantified using PiCOEXPLORER (USHIO, PAS-110) to generate calibration curves.

Reagent Preparation of ninhydrin solution
Dissolve 160 mg ninhydrin in a solution containing 8 mL ethanol and 2 mL distilled water.

Procedure
1) Mix 100 mM amino acid (glutamic acid) with 100 µL phosphate buffer, pH 5.0. Prepare a series of glutamic acid solutions of different concentrations. *1
   *1: Glutamic acid concentrations: 10, 50, 100, 500, and 1000 µg/mL.
2) Add 100 µL ninhydrin solution to the solution prepared above and heat at 80°C for 20 min.
3) Measure the solution using PiCOEXPLORER.

*Wavelength range (Color sensor R) : 575-660 nm
*Wavelength range (Color sensor G) : 455-630 nm

Calibration Curves



Result PiCOEXPLORER successfully generated calibration curves with both red and green reactions during amino acid measurement, proving its compatibility with the ninhydrin method.

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Features of PiCOEXPLORER

- Boost Lab Productivity. Absorbance measurement with PiCOEXPLORER. Wavelength range: 400 - 660 nm
- Your portable, personal tool for Lab work and Field work. Analyze directly in unopened PCR tube (0.2 ml). No sample loss, easy to dispose.
- Free app for quick results and calibration curves on your smartphone, tablets. Save raw data (absorbance, concentration, intensity) in Excel file on your PC.

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