







Glutamate Assay for Cedex Bio & Bio HT Analyzers

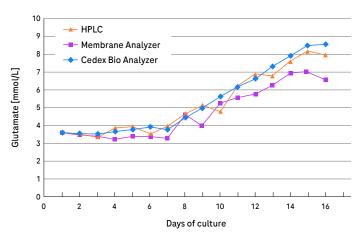
High testing performance and reproducibility

The Glutamate Assay developed for the Cedex Bio and Cedex Bio HT Analyzers provides accurate and consistent quantitative measurement of glutamate in cell culture and fermentation media. The assay technology is based on a colorimetric method where L-glutamate in a sample is oxidized by L-glutamate oxidase. One of the byproducts, $\rm H_2O_2$, generates quinone dye in the presence of peroxidase. The formation of dye is measured photometrically at 340 nm and is directly proportional to the glutamate concentration.

Glutamate
$$\xrightarrow{\text{GOD}}$$
 α -ketoglutarate + H_2O_2 + NH_3
 H_2O_2 + 4-AAP + TOOS $\xrightarrow{\text{POD}}$ Quinone dye + H_2O

Trust results to make high confidence decisions

- High comparability to HPLC
- Wide range with automated on-board dilution capabiltiy
- Proven accuracy, reproducibility and precision



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Glutamate Assay – Method Comparison. Glutamate concentrations in cell culture medium over a culture period of 16 days were monitored on the Cedex Bio Analyzer, on a membrane analyzer, and with HPLC.

(Verification data of Roche Pharma)

Benefit from a wide and sensitive measuring range

Glutamate concentration

Range

15 to 1,500 mg/L (0.1 to 10 mmol/L), and up to 150 g/L (1.0 mol/L) with automatic predilution

Conserve sample with low volume requirement

• Sample volume of 2 μl per test

Save time with improved workflow efficiency

- Ready-to-use reagents
- Long on-board and calibration curve stability
- Barcoded reagents

	Cedex Bio	Cedex Bio HT
On-board stability	4 weeks	8 weeks
Calibration curve stability	8 weeks	8 weeks

Take control of your bioprocess with the Cedex portfolio

- Broad and expandable assay menu
- Two instrument platforms with identical technology, menu and reagents to fit throughput and automation needs
- Solutions for development and manufacturing environments



	Level 1	Level 2	Level 3
Mean	0.57 mmol/L (83.85 mg/L)	3.47 mmol/L (510.4 mg/L)	6.66 mmol/L (979.7 mg/L)
CV in-run	0.4 %	0.3 %	0.5 %
CV inter-run	1.6 %	2.1 %	1.9 %

Precision was determined on a Cedex Bio HT Analyzer with samples of three concentration levels. Coefficients of variation (CV) were calculated for in-run precision (n = 21) and interrun precision (on 10 days). Representative performance data are shown. Results obtained in individual laboratories may vary. (Evalulation data of Roche Diagnostics)

Ordering information

Product	Pack size	Catalog Number
Glutamate V2 Bio	4 x 50 tests	07 395 582 001
Glutamate V2 Bio HT	200 tests	07 395 566 001
Calibrator A Bio	6 x 1 ml	06 682 189 001
Control A Level 1 Bio	6 x 1 ml	06 682 197 001
Control A Level 2 Bio	6 x 1 ml	06 682 227 001
Control A Level 3 Bio	6 x 1 ml	06 682 545 001

Regulatory Disclaimer

For use in quality control/manufacturing process only.

Trademark

CEDEX is a trademark of Roche.



Scan for ordering information for all Cedex Bio Analyzer and Cedex Bio HT Analyzer assays

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