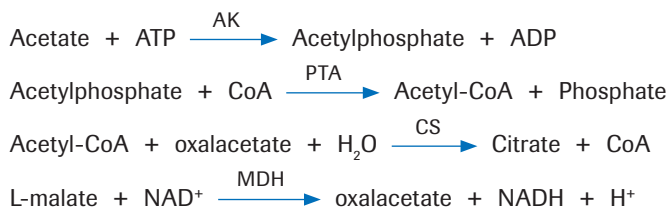


Acetate Assay for Cedex Bio and Cedex Bio HT Analyzers

High performance and reproducibility with accurate data

The acetate assay developed for the Cedex Bio and Cedex Bio HT Analyzers provides fast and accurate quantitative measurement of acetate in microbial fermentation. Acetate is converted to acetyl-CoA by acetate kinase (AK) and phosphotransacetylase (PTA). Acetyl-CoA reacts with oxalacetate in presence of citrate synthase (CS) to produce citrate. The oxalacetate for this reaction is generated by conversion of malate by L-malate dehydrogenase (MDH) with the reduction of NAD to NADH. The formation of NADH is measured photometrically by increase in absorbance at 340 nm, which relates to the concentration of acetate in the sample.



Trust results to make high confidence decisions

- Accurate results over a wide range with automated on-board dilution capability
- Continuous assay development with improved test performance and consistent results
- High comparability with the manual enzymatic photometric assay for acetate determination

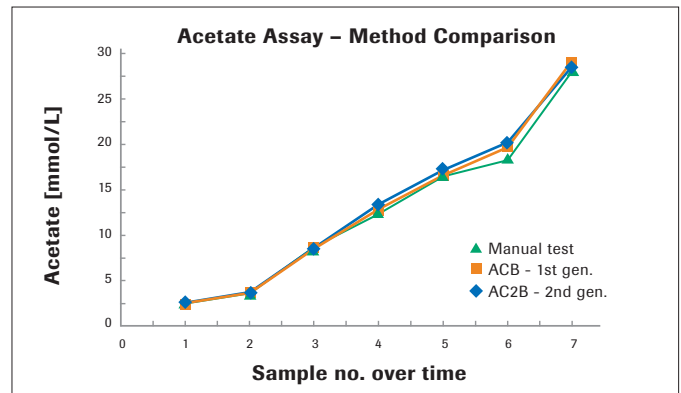


Figure 1: Acetate concentration was determined in an *E. coli* culture using a manual reference test (R-Biopharm, cat. no. 10148261035) and the two assay generations on the Cedex Bio Analyzer in parallel. (Verification data of Roche R&D)

Benefit from a wide and sensitive measuring range

	Acetate V2 Bio	Acetate V2 Bio HT
Range	0.25 - 38.9 mmol/L 15 - 2300 mg/L	0.17 - 38.9 mmol/L 10 - 2300 mg/L
	up to 3.89 mol/L, 230 g/L with automated on-board dilution	

Conserve sample with low volume requirement

- Sample volume of 2µl per test

Rely on precise results

	Level 1	Level 2	Level 3
Mean	2.8 mmol/L	17.8 mmol/L	28.4 mmol/L
CV in-run	1.6 %	1.0 %	0.7 %
CV inter-run	4.5 %	3.9 %	4.0 %

Precision was determined in samples of three concentration levels. Coefficients of variation (CV) were calculated for in-run precision (n=21) and inter-run precision (on 10 days). Representative performance data from Cedex Bio HT Analyzers are shown. Results obtained in individual laboratories may differ.

Save time with improved workflow efficiency

- No sample filtration or pretreatment required
- Ready-to-use reagents
- Long on-board and calibration curve stability
- Barcoded reagents
- Pre- and post-dilution capability

	Acetate Bio	Acetate Bio HT
On-board stability	28 days	84 days
Calibration interval	56 days	56 days

Take control of your bioprocess with the Cedex portfolio

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

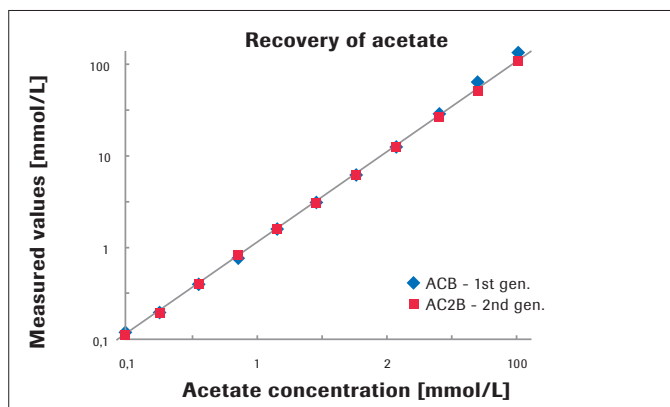


Figure 2: Acetate was spiked into bacterial culture medium in defined concentrations and measured using the 1st and 2nd generation of the acetate assay on the Cedex Bio HT Analyzer in parallel. (Verification data of Roche R&D)

Ordering information

Product	Pack size	Catalog number
Acetate V2 Bio	4 x 50 tests	07 395 442 001
Acetate V2 Bio HT	200 tests	07 395 485 001
Calibrator D Bio	6 x 1 ml	07 368 321 001
Control D Level 1 Bio	6 x 1 ml	07 368 178 001
Control D Level 2 Bio	6 x 1 ml	07 368 186 001
Control D Level 3 Bio	6 x 1 ml	07 368 194 001

Regulatory disclaimer

For use in quality control/manufacturing process only.

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Published by

Roche Diagnostics GmbH
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 Germany

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