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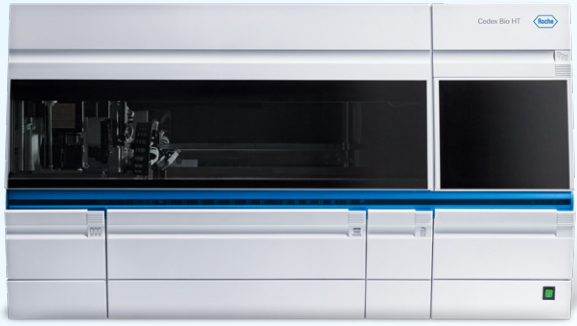

Ethanol Assay for Cedex Bio & Bio HT Analyzers

Reliable determination with high specificity

The Ethanol assay developed for the Cedex Bio and Cedex Bio HT Analyzers provides fast and accurate quantitative determination of ethyl alcohol (ethanol) in samples of fermentation media and other aqueous solutions.

Assay principle

The assay principle is based on the enzymatic oxidation of ethanol with NAD by a specific alcohol dehydrogenase (ADH). The resulting increase of NADH is measured photometrically at 340 nm.

$$\text{Ethanol} + \text{NAD}^+ \xrightarrow{\text{ADH}} \text{Acetaldehyde} + \text{NADH} + \text{H}^+$$

Benefit from a wide measuring range

	Ethanol concentration
Range	0.5 to 10 g/L (11 to 220 mmol/L), and up to 200 g/L (4.4 mol/L) with automated sample predilution capability

Save time with improved workflow efficiency

- Fully automated assay
- No sample filtration or pretreatment required
- Ready-to-use reagents
- Barcoded reagents
- Long on-board and calibration curve stability:

	Ethanol Bio	Ethanol Bio HT
On-board stability	28 days	56 days
Calibration interval	56 days	56 days

Take control of your bioprocess with the Cedex portfolio

- Broad and expandable assay menu
- Two instruments with identical technology, menu and reagents to meet your throughput and automation needs
- Appropriate solutions for development labs and qualified manufacturing environments

For use in quality control/manufacturing process only.

Rely on high specificity

The assay uses an alcohol dehydrogenase enzyme variant with high specificity for ethanol. There is no influence of methanol. A low cross-reactivity was observed with propanol, butanol and pentanol, however, these signals are much lower compared to those of ethanol in similar concentration.

The following substances were tested for interference in the Ethanol assay using a high concentration of 20 g/L:

Substance (20 g/L)	Recovery
Methanol	negative (< 0.05 %)
Ethanol	100 %
1-Propanol	15.1 %
2-Propanol	negative (< 0.05 %)
1-Butanol	4.3 %
2-Methyl-1-propanol (Isobutanol)	negative (< 0.05 %)
1-Pentanol	1.5 %
Ethylene glycol	negative (< 0.05 %)
Glycerol	negative (< 0.05 %)
2-Phenoxyethanol (Phenylglycol)	negative (< 0.05 %)
Acetaldehyde	negative (< 0.05 %)

Rely on precise results

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

	Level 1	Level 2	Level 3
Ethanol concentration	2.3 g/L	4.6 g/L	6.9 g/L
CV in-run	0.9 %	1.1 %	0.6 %
CV inter-run	1.2 %	1.1 %	0.9 %

Ordering information

Product	Pack size	Catalog Number
Ethanol Bio	4 x 50 tests	08 055 645 001
Ethanol Bio HT	200 tests	08 055 661 001
Calibrator E Bio	6 x 1 mL	08 083 703 001
Control E Level 1 Bio	6 x 1 mL	08 083 797 001
Control E Level 2 Bio	6 x 1 mL	08 083 819 001
Control E Level 3 Bio	6 x 1 mL	08 083 827 001

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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