

Enzymatic analysis in food & feed

with products from R-Biopharm



Time and cost saving



Simple and user-friendly



Manual, semi- or fully automated with full service package

More information:

<https://r-b.io/Enzymatic>

The next generation of enzymatic analysis

In general ...

... enzymatic tests are used for the analysis of foods such as fruit juices, wine, beer, dairy products, egg, meat, etc. Two major objectives here are compliance with regulatory provisions and standards and, in particular, production control through production monitoring and resulting measures. The tests are performed manually, but more and more often semi- and fully automated.

Enzymatic parameters cover the determination of sugars (e.g. glucose or lactose), organic acids (e.g. malic acid or lactic acid), alcohols and other ingredients (e.g. sulfite). These photometric methods are based on the specificity of a particular enzyme for an analyte and the absorbance of the coenzyme at 340 nm. The results are measured by means of a photometer.

Improvement of the previous gold standard!

At R-Biopharm, we firmly believe that gold standards can always be improved. This being said, we see the introduction and continuous extension of our Enzytec™ *Liquid* product line as the next generation of enzymatic analysis: Established quality and reliability of results of enzymatic tests combined with increased user-friendliness and simultaneous cost reduction!

All reagents of the Enzytec™ *Liquid* product line are liquid and ready-to-use, which means a significant improvement for laboratory organization:

- In laboratories with lower sample throughput, a few tests can be performed and the reagents stored for further use (the original shelf life remains unchanged).

- In laboratories with medium to high sample throughput and possibly existing automation, the reagents can be used directly in the analyzers and are available cooled for further analyses.
- In combination with our liquid stable multi-sugar and multi-acid standards, an innovative test system results.

Enzytec™ *Liquid* Sucrose/D-Glucose (Art. No. E8180)



Enzymatic analysis – Enzytec™ *Liquid* product line

Features & advantages



Cost-effective

50 - 500 determinations per kit
(manual or automated)



Established quality

High precision and sensitivity
with fast and reliable analysis



User-friendly

Reagents are liquid and
ready-to-use, same test procedure
for all parameters



Robust and stable

Reagents can be used until expiry
date after opening



Sustainably

Avoidance of reagent discard due
to high reagent stability



Automated

- Easy and safe use through analyzer
- Automation is easily possible



Enzymatic analysis – Enzytec™ *Liquid* product line

Product	Art. No.	No. of tests/amount	Description
Acids		Manual/auto-analyzer**	No. of tests/amount, wavelength
Acetic acid AOAC Official Method 2024.01 First Action	E8226	50/≥ 500	Enzymatic test (340 nm)
Citric acid AOAC Official Method 2024.02 First Action	E8230	50/≥ 500	Enzymatic test (340 nm)
Formic acid	E8210	50/≥ 500	Enzymatic test (340 nm)
D-Gluconic acid AOAC Official Method 2025.05 First Action	E8520	50/≥ 500	Enzymatic test (340 nm)
L-Glutamic acid AOAC Official Method 2026.05 First Action	E8530	50/≥ 500	Enzymatic test (340 nm)
D-Isocitric acid	E8550	50/≥ 500	Enzymatic test (340 nm)
D-/L-Lactic acid* AOAC Official Method 2024.08 First Action	E8240	50/≥ 500	Enzymatic test (340 nm)
D-Lactic acid AOAC Official Method 2024.06 First Action	E8245	50/≥ 500	Enzymatic test (340 nm)
L-Lactic acid AOAC Official Method 2024.07 First Action	E8260	50/≥ 500	Enzymatic test (340 nm)
D-Malic acid	E8270	50/≥ 500	Enzymatic test (340 nm)
L-Malic acid AOAC Official Method 2025.03 First Action	E8280	50/≥ 500	Enzymatic test (340 nm)
Sugars			
D-Galactose	E8120	50/≥ 500	Enzymatic test (340 nm)
D-Glucose AOAC Official Method 2024.03 First Action	E8140	50/≥ 500	Enzymatic test (340 nm)
D-Glucose/D-Fructose AOAC Official Method 2024.04 First Action	E8160	50/≥ 500	Enzymatic test (340 nm)
Lactose/D-Galactose* AOAC Official Method 2024.10 First Action	E8110	50/≥ 500	Enzymatic test (340 nm)
Lactose/D-Glucose*	E8130	50/≥ 500	Enzymatic test (340 nm)
Maltose/Sucrose/D-Glucose	E8170	50/≥ 500	Enzymatic test (340 nm)
Starch	E8100	50/≥ 500	Enzymatic test (340 nm)
Sucrose/D-Glucose* AOAC Official Method 2024.05 First Action	E8180	50/≥ 500	Enzymatic test (340 nm)
Sucrose/D-Glucose/D-Fructose*	E8190	50/≥ 500	Enzymatic test (340 nm)
Others			
Acetaldehyde	E8300	50/≥ 500	Enzymatic test (340 nm)
Ammonia	E8390	50/≥ 500	Enzymatic test (340 nm)
Cholesterol	E8320	58/≥ 580	Enzymatic test (492 nm)
Ethanol AOAC Official Method Final Action 2017.07	E8340	50/≥ 500	Enzymatic test (340 nm)
Glycerol	E8360	50/≥ 500	Enzymatic test (340 nm)
Nitrate	E8370	50/≥ 500	Enzymatic test (340 nm)
SO ₂ -Free (Free Sulfite)	E8610	100/≥ 1000	Colorimetric test (340 nm)
SO ₂ -Total (Total Sulfite)	E8600	100/≥ 1000	Colorimetric test (340 nm)
Urea/Ammonia	E8395	50/≥ 500	Enzymatic test (340 nm)

* Without differentiation.

** Depending on instrument.

Enzymatic analysis – Enzytec™ *Liquid* product line

Standards (for manual and automated use)

Product	Description	No. of tests/amount	Art. No.
Alcohol standard	Alcohol assay control solution	10 x 1.5 mL	AQ03-015
Enzytec™ Multi-acid standard low	Assay control solution for manual use of 7 different acids	3 x 3.5 mL	E8460
Enzytec™ Multi-acid standard high	Calibration solution for automation of 7 different acids	3 x 3.5 mL	E8465
Enzytec™ <i>Liquid</i> Multi-acid standard 2 low	Assay control solution for manual use of additional 4 acids	3 x 3.5 mL	E8470
Enzytec™ <i>Liquid</i> Multi-acid standard 2 high	Calibration solution for automation of additional 4 acids	3 x 3.5 mL	E8475
Enzytec™ Multi-sugar standard low	Assay control solution for manual use of 7 different sugars	3 x 3.5 mL	E8440
Enzytec™ Multi-sugar standard high	Calibration solution for automation of 7 different sugars	3 x 3.5 mL	E8445

Semi-automation with RIDA®CUBE SCAN

Full flexibility for low sample throughput

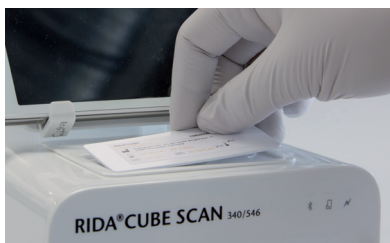
Simple – anytime - anywhere

The RIDA®CUBE SCAN is a small, cost-effective walk-away system for single tests. Due to its compact design, the RIDA®CUBE SCAN allows you to semi-automate your determinations independent of location. The use of the system simplifies and shortens the performance of your enzymatic tests

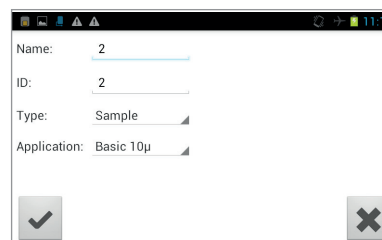
due to the single-dose reagents provided. After sample input via the tablet and sample pipetting, the test is performed automatically. The results are then displayed on the tablet and can be exported to your computer.

Test procedure

- 1 Insert the RFID card



- 2 Enter the sample data in the tablet app



The screenshot shows a tablet app interface with the following fields:

- Name: 2
- ID: 2
- Type: Sample
- Application: Basic 10μ

At the bottom, there are two buttons: a checkmark icon on the left and an 'X' icon on the right.

- 3 Pipette the sample into the test tube



- 4 Insert the test tube into the device



Semi-automation with RIDA®CUBE SCAN

RIDA®CUBE kits

Product	Art. No.
Lactose/D-Galactose*	RCS4110
D-Galactose	RCS4120
Lactose/D-Glucose*	RCS4130
D-Glucose	RCS4140
D-Glucose/D-Fructose*	RCS4160
Sucrose/D-Glucose*	RCS4180
Sucrose/D-Glucose/D-Fructose*	RCS4190
Acetic acid	RCS4226
Citric acid	RCS4230
D-/L-Lactic acid*	RCS4240
L-Lactic acid	RCS4260
L-Malic acid	RCS4280
Ethanol	RCS4340
Ammonia	RCS4390
SO ₂ -Total (Total Sulfite)	RCS4600
SO ₂ -Free (Free Sulfite)	RCS4610

* Without differentiation

RIDA®CUBE SCAN, Art. No. ZRCS0546



Features & advantages



Cost-effective

Low purchase price and maintenance-free device



Simple

Ready-to-use reagents for individual tests



User-friendly

RFID card with all test settings and calibration curves



Flexible

Semi-automated processing of individual samples at any time and from anywhere



Time saving

After sample addition, the test sequence is automated



Location-independent

Small and portable device
(16 x 13 x 14,5 cm)

Full automation with Pictus 500

Time and cost savings

The automation of Enzytec™ *Liquid* tests leads to a reduction in costs, processing time and user errors during performance. In this context, we offer our Pictus 500 analyzer with a full service package

including instrument, support, maintenance, reagents and applications. However, if you already own an analyzer, we will be happy to provide you with the necessary applications as well.

Features & advantages



User-friendly

Automatic sample pre-dilution



Established quality

No run errors and better reproducibility



Cost-effective

Cost reduction due to shorter processing time and significantly lower reagent consumption



Robust and stable

Long on-board stability of reagents



Time saving

Walk-away and multi-tests for large sample series



Flexible

Continuous loading of samples and reagents

Pictus 500 (Art. No. ZP500)



Everything from a single source

Our strong team of developers, application and service specialists, product managers and sales will support you from the idea to the routine application.