

Determination of α-Amino Nitrogen in wine, must and other food samples  
 Test-kit for 32 determinations on the RIDA®CUBE SCAN instrument (340 nm)

For in vitro use only  
 Store between +2 and +8°C

**Principle**

Orthophthaldialdehyde (OPA) and N-acetyl-L-cysteine (NAC), in the presence of an alkaline buffer, bind with primary amino acids to form colored complexes (isoindoles) which are measured at 340 nm.

**Reagents**

- # 1: 32 tubes with approx. 800 µl reagent 1 (buffer)
- # 2: 32 caps with approx. 200 µl reagent 2 (chromogen)
- # 3: one RFID card (Radio Frequency Identification)

The reagents are stable up to the end of the indicated month of expiry, if stored at 2 - 8 °C. Do not freeze the reagents. Let the reagents reach the laboratory temperature before use (20 - 25 °C).

The general safety rules for working in chemical laboratories should be applied. Do not swallow! Avoid contact with skin and mucous membranes.

This kit may contain hazardous substances. For hazard notes on the contained substances, please refer to the appropriate material safety data sheets (MSDS) for this product, available online at [www.r-biopharm.com](http://www.r-biopharm.com). After use, the reagents can be disposed of with the laboratory waste. Packaging materials may be recycled.

**Sample preparation**

- Use clear liquid samples directly (e.g. filtered wine), or after dilution into the relevant measuring range.
- Filter or centrifuge turbid solutions
- Degas samples containing carbon dioxide
- Clarify samples containing proteins
- Crush and homogenize solid or semi-solid samples and extract with water; filtrate or centrifuge, or use Carrez clarification if necessary
- For fat containing samples, weigh sample into a volumetric flask (min. 50 ml) and extract with hot water; cool to allow the fat to separate (for example on an ice bath for 15 min); make up to the mark with water, remove the fatty layer on the top and filter the aqueous part before testing

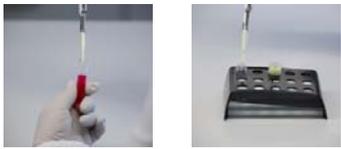
**Assay specifications**

The assay specifications are saved on the RFID card and the application is executed automatically by the instrument.

Wavelength: 340 nm  
 Temperature: 37 °C  
 Calibration: calibration curve is saved on RFID card  
 Test sequence: sample + R1 / mix / 2 min / A1 / R2 / mix / 5 min / A2  
 Sample volume: 20 µl (Basic) or 100 µl (Sensitive)  
 The required volume must be pipetted precisely into reagent 1 (test tube).

The sample volume is 20 µl or 100 µl. For the sensitive application, it is also possible to pipette directly into the tube any dilution with 100 µl total volume (for example 50 µl sample and 50 µl water). Results must be recalculated accordingly.

**Handling procedure**

Place the RFID Card on the instrument	
Enter sample data into tablet app.: - identification - volume (20 or 100 µl)	
Pipette the sample into the test-tube (reagent 1)	
Close the tube with the cap (reagent 2), insert it into the instrument and close the door	

**Test results**

The results are given in mg/l by the instrument, and following ranges are recommended:

- from 5 to 150 mg/l for the basic application (20 µl)
- from 1 to 30 mg/l for the sensitive application (100 µl)

**Notes**

1. Use a quality control every day where a run is performed (e.g. Glycine amino acid from Sigma, cat N° G8898 = 200 mg/l). If the deviation of this quality control is higher than 10%, it is recommended to measure the reagent blank with a water sample, and to subtract it from all future sample results.

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