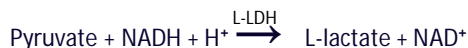
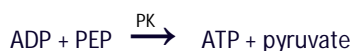




# Enzymatic kit for determination of Glycerol

## Principle:



The determination is based on the formation of  $\text{NAD}^+$  measured by the decrease in light absorbance at 340 nm

## Kit for 45 / 135 analysis includes

Bottle	Composition	Quantity
A.	Buffer	100 ml
B.	Coenzymes	10 ml
C.	Enzymes	1000 $\mu\text{l}$
D.	Diluent	13 ml
STD.	Standard 1 g/l	2 ml

## Reagent preparation:

**R1:** preparation for 9 analysis with macro cuvettes (or 27 analysis with semi-micro cuvettes)

Mix gently **Bottle B**. Combine 2 ml of **Bottle B** with 18 ml of **Bottle A**.

Stability of R1: 1 week if stored at 2-8 °C.

**R2:** preparation for 9 analysis with macro cuvettes (or 27 analysis with semi-micro cuvettes)

Mix gently **Bottle C**. Combine 200  $\mu\text{l}$  of **Bottle C** with 2600  $\mu\text{l}$  of **Bottle D**.

Stability of R2: 4 weeks if stored at 2-8 °C.

## Sample preparation:

If necessary, filtrate or centrifuge the sample in order to eliminate the particles in suspension.

## Performances:

This test has been developed to determine the concentration of glycerol in a measuring range from 0 to 1 g/l.

If the expected values are higher than 1 g/l, samples should be diluted with distilled water and the results must be multiplied by the dilution factor.

## Storage instructions and reagent stability:

The reagents are stable up to the expiry date, if stored at 2 to 8°C. Contamination should be avoided. Do not freeze the reagents!

## Warnings and precautions:

Do not swallow the reagents. Avoid contact with the skin and mucous membranes.

## Sample analysis

	Blank	Standard	Sample
R1	2200 $\mu\text{l}$	2200 $\mu\text{l}$	2200 $\mu\text{l}$
Water	30 $\mu\text{l}$		
Standard		30 $\mu\text{l}$	
Sample			30 $\mu\text{l}$
Mix and read	DO1 blank	DO1 standard	DO1 sample
R2	300 $\mu\text{l}$	300 $\mu\text{l}$	300 $\mu\text{l}$
Mix wait 15 min and read	DO2 blank	DO2 standard	DO2 sample

Wavelength: 340 nm  
Cuvette: 1 cm path (plastic or glass)  
Temperature: 20 - 37°C  
Zero: against water or air

## Calculations:

$$\Delta\text{DO sample} = (\text{DO2-DO1}) \text{ sample} - (\text{DO2-DO1}) \text{ blank}$$

$$\Delta\text{DO standard} = (\text{DO2-DO1}) \text{ standard} - (\text{DO2-DO1}) \text{ blank}$$

$$\text{C sample (g/l)} = \text{C standard} \times \frac{\Delta\text{DO sample}}{\Delta\text{DO standard}}$$

Dilution factor of the sample has to be considered in the calculation

It's possible to perform 135 analysis if working with semi-micro and applying the volumes below:

R1= 730  $\mu\text{l}$  / Sample = 10  $\mu\text{l}$  / R2= 100  $\mu\text{l}$