CE

ACE
Quantitative Photometric FAPGG* Test

Cat. No.	Package Size
101 080	R1/R2 = 10 x 10 ml Buffer / Lyophilisate

SUMMARY

ACE is a hydrolase that transforms Angiotensin I (quite inactive) in Angiotensin II (a very strong vasoconstrictor).
ACE does also inactivate bradykinin.
Elevated levels of ACE occur in patients with active sarcoidosis, tubercolosis, Gaucher's disease and in many other pathological conditions of lung and liver diseases.

PRINCIPLE

ACE catalyzes the hydrolysis of FAPGG*, forming furylacryloylphenylalanine (FAP). The decrease of the absorbance at 340 nm is proportional to the activity of the ACE and is measured kinetically

REAGENT

Reagent Composition:

Reagent R1a (liquid)
Good's Buffer >20 mmol/L pH 8.2
Reagent R1b (lyophilized)

* FAPGG = furylacryloylphenylalanylglycylglycine

Stability:
The reagents, stored at 2-8°C, are stable up to the expiry date printed on the labels .

Additional Reagents – not included in the kit:

- **ACE CALIBRATOR 1 x 1 mL**
  Kit No. 282 000
- **ACE NORMAL CONTROL kit 3 x 1 mL**
  Kit No. 282 200
- **ACE ELEVATED CONTROL kit 3 x 1 mL**
  Kit No. 282 300

Preparation of working reagent :

Add 10 ml of Reagent 1a to one vial of Reagent 1b.
Mix gently for dissolution.

STABILITY: Up to 4 weeks stored at 2-8°C if not contamined during handling.

Close immediately after handling.

SAMPLES

- Serum and Heparinplasma
  (EDTA plasma cannot be used!)

ANALYTICAL PROCEDURE

- Wavelength: 340 nm
- Temperature: 37°C
- Reading: against air or distilled water
  Decreasing Absorbance

Let reagent reach working temperature before use

Pipette into test tubes or cuvettes

	S (Sample)	Cal (Calibrator)
Working Reagent	1000 µl	1000 µl
Sample	100 µl	----
Calibrator	----	100 µl

Mix well and incubate for 5 minutes at 37°C.
Read the absorbance of calibrator (Acal1) and sample (As1).
Exactly after another 5 minutes at 37°C read again calibrator (Acal2) and sample (As2).

Determine difference of absorbance for sample and calibrator:

$\Delta As = A1s - A2s$

$\Delta Acal = A1cal - A2cal$

CALCULATION

$(\Delta As / \Delta Acal) \times$ Calibrator conc. = U/L of ACE

REFERENCE VALUES

	37°C	30°C
U/L	8 - 52	5 - 33

NOTES

1. Dilute samples with activity higher than 150 U/L with saline solution 1+3 ; repeat determination and multiply result by 4.
2. Attention to interferring substances: see references 2.
3. Avoid the use of anticoagulants containing fluorides and EDTA.

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