

AMMONIA

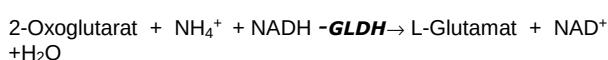
GLDH-UV



Cat.No	Package Size
106 016	6 x 10 ml R1a / 6 ml R1b / 2 x 8 ml R2, / Standard
106 000	5 x 20 ml R1a / 10 ml R1b / 25 ml R2, / Standard
106 001	2 x 100 ml R1a / 2 x 10 ml R1b / 2 x 25 ml R2 / Standard

PRINCIPLE

"GLDH-UV"/ enzymatic UV-Test :



GLDH = Glutamatdehydrogenase

REAGENTS

Composition (concentrations in the test)

R1a:	TRIS buffer	pH 8,0	50 mmol/l
	GLDH		> 6,0 kU/l
	LDH		> 2 kU/l
	EDTA		5,3 mmol/l
R1b:	NADH		0,18 mmol/l
R2:	2-Oxoglutarate		18 mmol/l
Standard solution:			200 µg/dl (118 µmol/l)

The sealed reagents are stable up to the indicated expiry date if stored at 2° - 8°C.

Reaction mixture

R2 and Standard solution are ready for use

Reagent R1 :

Mix 10 parts of R1a with 1 part of R1b

Stability of reaction mixture: + 2° to + 8°C: 4 days
+18° to +25°C: 2 days

Precautions

The reagents contain 0.95 % sodium azide as preservative. Do not swallow or ingest.
Keep away from skin and mucous membranes!

SAMPLE MATERIAL

Plasma (do not use ammonia heparinate!)

REFERENCE VALUES

Adults:	Women:	≤ 82 µg/dl (≤ 48 µmol/l)
	Men:	≤ 94 µg/dl (≤ 55 µmol/l)

ASSAY PROCEDURE

Wavelength : 334/340/365 nm
Light path: 1 cm
Temperature : 37° C
Measure decreasing absorbance
against Reagent Blank (RBL)

Pipette into cuvettes

	Sample	RBL
Sample	200 µl	-
Aqua dist.	-	200 µl
Reaction mixture R1	1000 µl	1000 µl
Mix and incubate for 3 min, then read A_1 against reagent blank (RBL)		
Reagent R2	200 µl	200 µl
Mix, incubate 5 min, then read A_2		

Determine $\Delta A = (A_1 - A_2)$ Sample and Standard

CALCULATION

with standard :

$$\text{Ammonia } [\mu\text{g/dl}] = \frac{\Delta A \text{ sample}}{\Delta A \text{ standard}} \times \text{Conc. Standard } [\mu\text{g/dl}]$$

Recalculation

$$\text{Ammonia } [\mu\text{g/dl}] \times 0,588 = \text{Ammonia } [\mu\text{mol/l}]$$

QUALITY CONTROL

We recommend Greiner special controls with proven values for the Greiner Method .

PERFORMANCE DATA

- Analytical range

The test is linear up to 1500 µmol/l (2500 µg/dl). At higher concentrations dilute the samples 1 + 1 with phys. NaCl solution and multiply the results by 2.

- Detection limit

The lower detection limit is 3.2 µmol/l (5.4 µg/dl)

- Precision

Between-run reproducibility

N=11	Mean [µmol/l]	SD [µmol/l]	CV (%)
Control 1	121,2	2,27	1,88
Control 2	93,0	1,45	1,56
Patient	361,6	2,91	0,80

Within-run reproducibility

N=11	Mean [µmol/l]	SD [µmol/l]	CV (%)
Control 1	123,5	3,67	2,97
Control 2	91,1	1,64	1,80
Patient	361,5	4,93	1,36

- Correlation

A comparative study has been performed between the Greiner method and another commercial reagent on 31 human serum samples. The parameters of linear regression are as follows:

$$y = 1,048 x - 3,99 \text{ µg/dl}; \quad r = 0,998$$

INTERFERENCES

No interference by Ascorbic Acid up to 40 mg/dl
Bilirubin up to 40 mg/dl,
Hemoglobin up to 500 mg/dl
Lipemia up to 600 mg/dl Triglycerides .

LITERATURE

1. Thomas L. Clinical Laboratory Diagnostics. 1sted. Frankfurt: TH-Books Verlagsgesellschaft; 1998
2. Greiling, H. Gressner, A.M.: Lehrbuch d. Klin.Chemie und Pathobiochemie (1987), S. 446-447

SYMBOLS USED

IVD

For *in vitro* diagnostic medical use

LOT

Batch Code



Use by



Temperature limitation