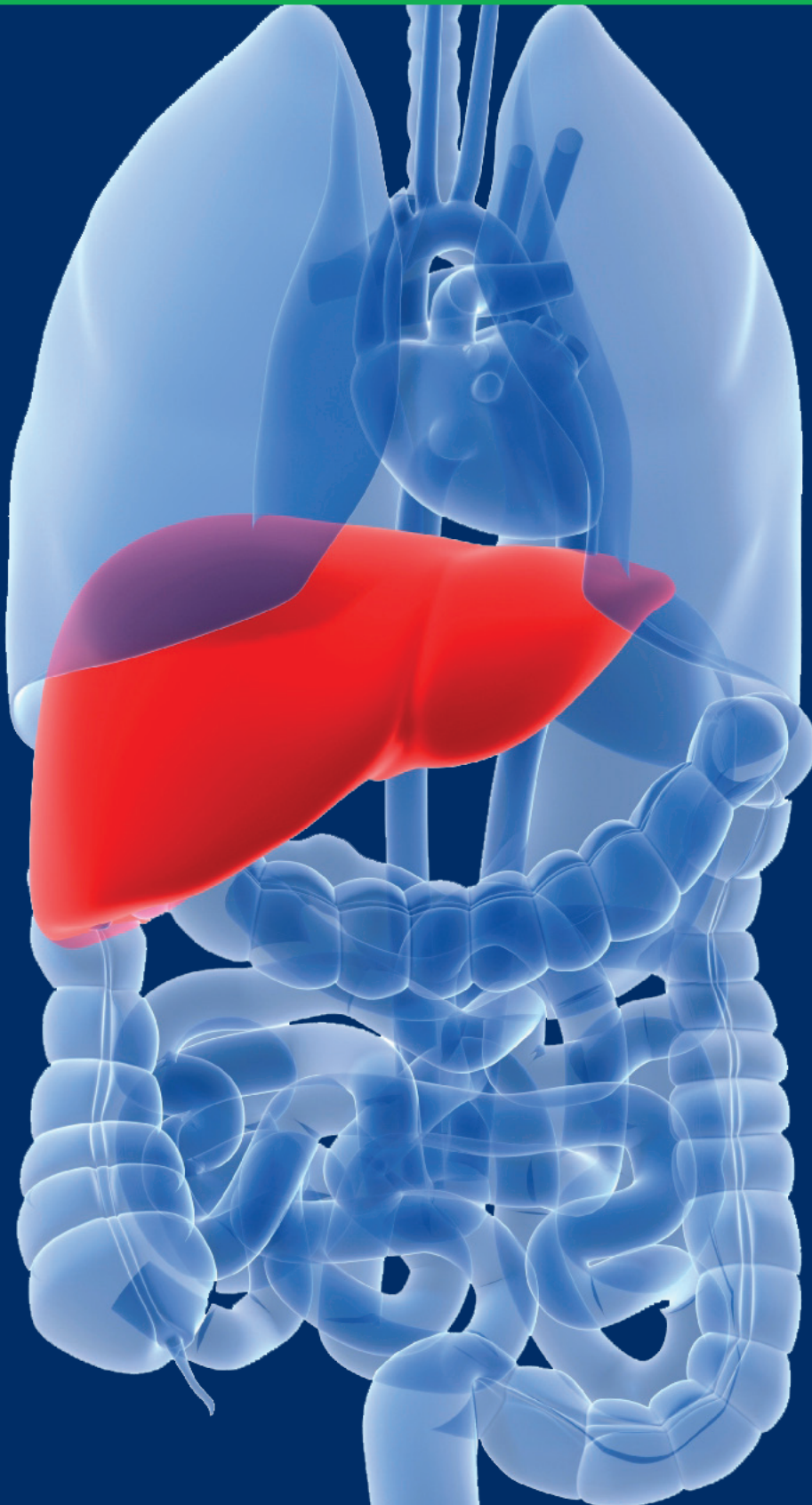


Glutamate Dehydrogenase (GLDH)



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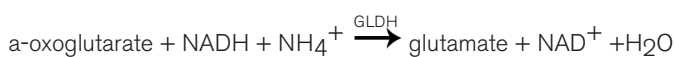
WHAT IS GLDH?

Glutamate dehydrogenase (GLDH) is a mitochondrial enzyme present in all tissues. The physiological function of GLDH is the oxidative deamination of glutamate. Measurable increases in serum levels are indicative of hepatocellular necrosis.

Elevated serum GLDH levels indicate liver damage and GLDH plays an important role in the differential diagnosis of liver disease, especially in combination with aminotransferases. GLDH is localised in mitochondria, therefore practically none is liberated in generalised inflammatory diseases of the liver such as viral hepatitis. Liver diseases in which necrosis of hepatocytes is the predominant event, such as toxic liver damage or hypoxic liver disease, are characterised by high serum GLDH levels. GLDH is important for distinguishing between acute viral hepatitis and acute toxic liver necrosis or acute hypoxic liver disease, particularly in the case of liver damage with very high aminotransferases.

HOW IS GLDH MEASURED?

This is an optimised standard method according to the recommendations of the Deutsche Gesellschaft für Klinische Chemie (DGKC) for the quantitative in vitro determination of GLDH in serum. This procedure measures the non-specific creep.



As NADH is oxidised, the decrease in the absorbance per minute is measured spectrophotometrically at 340nm and is proportional to the GLDH activity.

• Normal Values in Serum

	25°C	37°C
Men	< 4.0 U/l	< 7.0 U/l
Women	< 3.0 U/l	< 5.0 U/l

- **Sensitivity** – 3 U/l* (minimum detectable level with acceptable precision)
- **Linearity** – 70 U/l*
- **Precision** –

Within run precision

	Level 1	Level 2
Mean	14	27
SD	0.79	1.49
CV (%)	4.16	3.48
n	20	20

Between run precision

	Level 1	Level 2
Mean	14	27
SD	0.79	1.49
CV (%)	5.66	5.53
n	20	20

*obtained on an RX monza™ analyser

- **Correlation** – $y = 0.99x + 0.14$
 $r = 0.99$
45 samples spanning 3.02 - 60.65U/l

- **Sample Type** – Serum

- **Interferences** – Haemolytic and lipaemic sera may interfere with the assay

- **Completely Automated Protocols** – Available for a range of analysers

Product Description	Size (ml)	Cat. No.
GLDH (DGKC)	R1 8x6, R2 2x10	GL441
GLDH (DGKC)	R1 5x100, R2 2x20	GL442

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