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LDH5
Native Human Lactate Dehydrogenase 5

Catalog No.	CSI19687A CSI19687B	**Quantity:**	100 U 500 U

Alternate Names: Lactate dehydrogenase 5, LDH-5, LD-5 Isoenzyme, LDH-5 Isoenzyme, 4M Isoenzyme

Description: Lactate Dehydrogenase (LDH) catalyses the conversion of L-lactate and NAD+ to pyruvate and NADH in the final step of anaerobic glycolysis. Enzymatically active lactate dehydrogenase consists of four subunits (tetramer). The two most common subunits are the LDH-M and LDH-H peptides, named for their discovery in muscle and heart tissue, and encoded by the LDHA and LDHB genes, respectively. These two subunits can form five possible tetramers (isoenzymes): LDH-1 (4H), LDH-5 (4M), and the three mixed tetramers (LDH-2/3H1M, LDH-3/2H2M, LDH-4/1H3M). These five isoforms are enzymatically similar but show different tissue distribution. LDH-1 (heart), LDH-2 (reticuloendothelial system), LDH-3 (lung), LDH-4 (kidneys), and LDH-5 (liver and striated muscles). LDH-5 is believed to be an excellent indicator of active liver damage.

CAS Number: 9001-60-9

E.C Number: 1.1.1.27

Concentration: ≥ 1.0 mg/mL (Coomassie)

Source: Human liver

Formulation: Liquid suspension in 3.1 M ammonium sulfate, 20 mM TRIS-chloride, 1 mM DTT, 1 mM EDTA, pH 8.3

Purity: LDH-5: ≥ 95% (Helena QuickGel® LD Isoenzyme Electrophoresis)
LDH-1: ≤ 2.0%
LDH-2: ≤ 2.0%
LDH-3: ≤ 2.0%
LDH-4: ≤ 2.0%

Contaminants: CPK: ≤ 1.0%

Biological Activity: ≥ 1,000 U/ml (Dimension Clinical Chemistry System)
One unit will catalyze the oxidation of one micromole of L-lactate to pyruvate with simultaneous reduction of NAD+ to NADH per minute at 37°C and pH 9.4.

Specific Activity: ≥ 250 U/mg

Storage & Stability: Store at 2-8 °C for at least 1 year. **DO NOT FREEZE**

Infectious Disease Statement: Negative or non-reactive for HIV-1 and 2, HCV and HBsAg. However because no test method can offer complete assurance that infectious agents are absent, handle at Biosafety Level 2.

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