

Product Data Sheet

Cat # RP-368

Recombinant Lactate Dehydrogenase

**Size:** 1 mg

Lactate dehydrogenase (LDH) is an enzyme (EC1.1.1.27) present in a wide variety of organisms, including plants and animals. A tetrameric enzyme that catalyses the inter conversion of pyruvate and lactate with concomitant inter conversion of NADH and NAD<sup>+</sup>. At high concentrations of pyruvate, the enzyme exhibits feedback inhibition and the rate of conversion of pyruvate to lactate is decreased. In vertebrates, genes for three different subunits (LDH-A, LDH-B and LDH-C) exist.

**Source:** Escherichia Coli. The DNA encoding chicken LDH-B is cloned from cDNA library of chicken heart. The protein (1 mg/ml) was lyophilized with 0.1mg potassium phosphate.

**Applications and Suggested Dilutions:** It is recommended to reconstitute the lyophilized LDH in sterile 18MQ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Users must optimize the appropriate concentration and conditions for each assay.

**Storage and Stability:** Lyophilized Lactate Dehydrogenase although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution LDH should be stored at 4°C between 2-7 days and for future use below -18°C. **Please prevent freeze-thaw cycles.** If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.

**Biological Activity:** The specific activity was found to be 200 IU/mg.

**Unit Definition:** One unit is defined as 1µmol of NAD<sup>+</sup> production per minute under the assay conditions (25°C, pH 7.0). Both transaminase activities include α-hydroxyglutarate dehydrogenase activity

**Usage:** This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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