

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Lactate Dehydrogenase A/LDHA in Western blots and detects human Lactate Dehydrogenase A/LDHA in direct ELISAs. In direct ELISAs, approximately 20% cross-reactivity with recombinant human LDHB is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Lactate Dehydrogenase A/LDHA Ala2-Val92 Accession # P00338
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

LDHA (lactate dehydrogenase A chain; also LDH-M and PIG-19) is a 34-36 kDa member of the LDH family of enzymes. It is a part of a cytoplasmic complex that is found principally in hepatocytes and skeletal muscle. The LDHA complex catalyzes the conversion of pyruvate to lactate, thereby generating NAD, the final step in anaerobic glycolysis. This NAD is essential for the subsequent generation of ATP. Human LDHA is 332 amino acids (aa) in length. It contains an N-terminal coenzyme binding region, a central catalytic site, and at least nine utilized Lys acetylation and two Tyr phosphorylation sites. It also undergoes ISGylation where a 17 kDa product of the ISG15 gene is covalently attached to LDHA in a ubiquitin-like manner. LDHA forms tetramers composed of two dimers of varying composition. The tetramer may be homotetrameric (four monomers), or contain from one to three substitute LDHB monomers typically found in heart muscle. There are multiple splice variants. One possesses a five aa substitution for aa 237-332, a second contains a 45 aa substitution for aa 230-332, a third shows a deletion of aa 82-139, while a fourth utilizes an alternative start site 29 aa upstream of the standard site. Over aa 2-92, human LDHA shares 93% aa sequence identity with mouse LDHA.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.