

#2012 Store at -20C

LDHA Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: WB	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 37	Source: Rabbit	UniProt ID: #P00338	Entrez-Gene Id: 3939
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Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	LDHA Antibody detects endogenous levels of total LDHA protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human LDHA. Antibodies are purified by peptide affinity chromatography.	
Background	Lactate dehydrogenase (LDH) catalyzes the interconversion of pyruvate and NADH to lactate and NAD ⁺ . When the oxygen supply is too low for mitochondrial ATP production, this reaction recycles NADH generated in glycolysis to NAD ⁺ , which reenters glycolysis. The major form of LDH found in muscle cells is the A (LDHA) isozyme. The LDHA promoter contains HIF-1α binding sites (1). LDHA expression is induced under hypoxic conditions (2). During intensive and prolonged muscle exercise, lactate accumulates in muscle cells when the supply of oxygen does not meet demand. When oxygen levels return to normal, LDH converts lactate to pyruvate to generate ATP in the mitochondrial electron transport chain.	
Background References	1. Semenza, G.L. et al. (1996) <i>J Biol Chem</i> 271, 32529-37. 2. Semenza, G.L. (2007) <i>Biochem J</i> 405, 1-9.	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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