LDHA Antibody

For Research Use Only. Not For Use In Diagnostic Procedures.

**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 refeeds into glycolysis. In muscle cells, the major form of LDH is the isozyme A (LDHA). The LDHA promoter contains HIF-1-α binding sites (1). Under hypoxic conditions, the expression of LDHA is induced (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.

**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.

**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.

**Species cross-reactivity is determined by western blot.**

**Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

**Background References:**
