

**LACTB Antibody**

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	54	Rabbit	#P83111	114294

**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**

LACTB Antibody recognizes endogenous levels of total LACTB protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human LACTB protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

LACTB is a serine beta-lactamase-like protein that is most prominently expressed in skeletal muscle, heart and liver (1). It contains an amino-terminal transmembrane domain and is localized to the mitochondrial intermembrane space, where it is polymerized into stable filaments that promote intramitochondrial membrane organization and micro-compartmentalization (2). Studies in multiple breast cancer cell types have shown that LACTB can function as a tumor suppressor by promoting decreased levels of phosphatidylserine decarboxylase (PISD), leading to reduced cell proliferation (3). In accordance with this, levels of LACTB have been shown to be downregulated in hepatocellular carcinoma and colorectal cancer and associated with poor prognosis in both (4,5).

**Background References**

1. Smith, T.S. et al. (2001) *Genomics* 78, 12-4.
2. Polianskyte, Z. et al. (2009) *Proc Natl Acad Sci U S A* 106, 18960-5.
3. Keckesova, Z. et al. (2017) *Nature* 543, 681-6.
4. Xue, C. et al. (2018) *Am J Transl Res* 10, 4152-62.
5. Zeng, K. et al. (2018) *Oncogene* 37, 5534-51.

**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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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