

LARS (D2N4M) Rabbit mAb

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Applications: W, IP, eCLIP	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 134	Source/Isotype: Rabbit IgG	UniProt ID: #Q9P2J5	Entrez-Gene Id: 51520
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation
eCLIP

Dilution

1:1000
1:50
1:200

For more information about the RBP-eCLIP service please visit Eclipsebio.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

LARS (D2N4M) Rabbit mAb recognizes endogenous levels of total LARS protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human LARS protein.

Background

Leucyl-tRNA Synthetase (LARS) is a leucine sensor critical for the activation of mTORC1 (1). mTORC1 kinase complex is an important component in the regulation of cell growth (2,3). Its activity is modulated by energy levels, growth factors, and amino acids (4,5). The four related GTPases, RagA, RagB, RagC, and RagD, have been shown to interact with raptor in mTORC1 (2,3). These interactions are both necessary and sufficient for mTORC1 activation in response to amino acid signals (2,3). LARS functions as a GTPase-activating protein (GAP) and interacts directly with RagD GTPase (1). The role of LARS in leucine sensing is not related to its tRNA charging activity (1).

Background References

1. Han, J.M. et al. (2012) *Cell* 149, 410-24.
2. Sancak, Y. et al. (2008) *Science* 320, 1496-501.
3. Kim, E. et al. (2008) *Nat Cell Biol* 10, 935-45.
4. Hay, N. and Sonenberg, N. (2004) *Genes Dev* 18, 1926-45.
5. Wullschleger, S. et al. (2006) *Cell* 124, 471-84.

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 **IP:** Immunoprecipitation **eCLIP:** eCLIP

Cross-Reactivity Key

H: Human **Mk:** Monkey

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