

Product datasheet for KN309148LP

Lats2 Mouse Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control Format:

Donor DNA: Luciferase-Puro

Lats2 Symbol: 50523 Locus ID:

KN309148G1, Lats2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) Components:

KN309148G2, Lats2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN309148LPD, donor DNA containing left and right homologous arms and Luciferase-Puro

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

Disclaimer: These products are manufactured and supplied by OriGene under license from ERS. The kit is

> designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the

experimental process.

RefSeq: NM 015771, NM 153382

UniProt ID: Q7TSJ6

Synonyms: 4932411G09Rik; AV277261; AW228608



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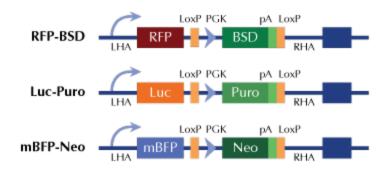


Summary:

Negative regulator of YAP1 in the Hippo signaling pathway that plays a pivotal role in organ size control and tumor suppression by restricting proliferation and promoting apoptosis. The core of this pathway is composed of a kinase cascade wherein STK3/MST2 and STK4/MST1, in complex with its regulatory protein SAV1, phosphorylates and activates LATS1/2 in complex with its regulatory protein MOB1, which in turn phosphorylates and inactivates YAP1 oncoprotein and WWTR1/TAZ. Phosphorylation of YAP1 by LATS2 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration. Acts as a tumor suppressor which plays a critical role in centrosome duplication, maintenance of mitotic fidelity and genomic stability. Negatively regulates G1/S transition by down-regulating cyclin E/CDK2 kinase activity. Negative regulator of the androgen receptor. Phosphorylates SNAI1 in the nucleus leading to its nuclear retention and stabilization, which enhances its epithelial-mesenchymal transition and tumor cell invasion/migration activities. This tumor-promoting activity is independent of its effects upon YAP1 or WWTR1/TAZ (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:

Donor Vector Edited Chromosome



RFP, Luc, and mBFP will be under native gene promoter