

Product datasheet for **KN309148LP**

Lats2 Mouse Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control
Donor DNA:	Luciferase-Puro
Symbol:	Lats2
Locus ID:	50523
Components:	<p>KN309148G1, Lats2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)</p> <p>KN309148G2, Lats2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)</p> <p>KN309148LPD, donor DNA containing left and right homologous arms and Luciferase-Puro functional cassette.</p> <p>GE100003, scramble sequence in pCas-Guide vector</p>
Disclaimer:	<p>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.</p>
RefSeq:	<u>NM_015771</u> , <u>NM_153382</u>
UniProt ID:	<u>Q7TSJ6</u>
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:
