

OriGene Technologies, Inc.

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Product datasheet for MR226238L4V

Lats2 (NM_153382) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Lats2 (NM_153382) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Lats2
Synonyms:	4932411G09Rik; AV277261; AW228608
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_153382
ORF Size:	528 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR226238).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <u>More info</u>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<u>NM 153382.1, NP 700431.1</u>
RefSeq Size:	913 bp
RefSeq ORF:	531 bp
Locus ID:	50523
Cytogenetics:	14 C3



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Gene 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 SNA11 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]

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