

Product datasheet for **MC223684**

Lats1 (NM_010690) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Lats1 (NM_010690) Mouse Untagged Clone
Tag: Tag Free
Symbol: Lats1
Synonyms: AW208599
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223684 representing NM_010690
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGAGGGGTGAAAAGCCAGAAGGGTACAGACAGATGAGGCCTAAGACCTTTCCTGCCAGCACTACC
 CTGGCAGCAGCCGACAGATGCTGCAGGAGATCCGAGAATCCCTGAGGAATTTATCAAACCATCTGATGC
 TTCGAAGGCCGAGCATAACCTGAATAAGATGTCGACTGAAGATCCAGGCAGGTGAGAAATCCACCCAAA
 TTTGGCACACATCATAAAGCCTTGCAAGAAATTCGAAACTCTCTACTACCATTTGCAAATGAAACAAGTT
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 CATGGTTATTCAAGCTCTTCAGAAAACCAATAACAGAAGCATAGAAGCCGCTGTTGAATTCATTAGTAAA
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 GCTCCTATTCAACAGCCCGTAAAAGCATGCGCGTCTGAAACCAGAGCTGCAGACTGCTTTAGCCCCAA



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CATCTGTACACCAAAACCCATCTGTCCCTCCATATGAGTCAGTAAGTAAGCCCTGCAAAGATGAACAGC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_010690
- Insert Size:** 3390 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_010690.1](#), [NP_034820.1](#)

RefSeq Size: 7222 bp

RefSeq ORF: 3390 bp

Locus ID: 16798

UniProt ID: [Q8BYR2](#)

Cytogenetics: 10 A1

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 LATS1 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 maintenance of ploidy through its actions in both mitotic progression and the G1 tetraploidy checkpoint. Negatively regulates G2/M transition by down-regulating CDK1 kinase activity. Involved in the control of p53 expression. Affects cytokinesis by regulating actin polymerization through negative modulation of LIMK1. May also play a role in endocrine function. Plays a role in mammary gland epithelial cells differentiation, both through the Hippo signaling pathway and the intracellular estrogen receptor signaling pathway by promoting the degradation of ESR1. [UniProtKB/Swiss-Prot Function]