

Product datasheet for MC223308

Lats2 (NM_015771) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Lats2 (NM_015771) Mouse Untagged Clone
Tag: Tag Free
Symbol: Lats2
Synonyms: 4932411G09Rik; AV277261; AW228608
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223308 representing NM_015771
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGAGGCCAAAGACTTTTCTGCCACAACCTTACTCTGAAATAGCCGGCAGCGATTGCAAGAGATTCGAG
 AGGGGCTGAAGCAGCCATCCAAGGCTTCCACCCAGGGGCTGCTGGTGGGACCAAACAGTGACACTCCCT
 GGATGCCAAAGTCTGGGAGCAAAGATGCCTCCAGGCAGCAGCAAATGAGAGCCACCCGAAGTTTGA
 CCTTATCAAAAAGCTCTCAGGAAATCCGATATTCCTCCTGCCTTTTGCCAACGAGTCAGGCACCTCGG
 CAGCTGCAGAGGTGAACCGGCAGATGCTTCAGGAGTTGGTGAATGCGGGATGTGACCAGGAGATGGCTGG
 CAGAGCGCTCAAGCAGACGGGCAGTAGGAGTATCGAAGCTGCCTTGGAGTACATCAGTAAGATGGCTAC
 CTGGACCCAGGAATGAGCAGATTGTGCGAGTCATCAAGCAGACCTCCCCAGGAAAGGGCCTGGCGCCCA
 CCCCAGTACTCGGCGGCCAGTTTCGAGGGCACAGGGGAAGCACTCCCATCCTACCACAGCTGGGTGG
 TGCAAACACGAGGGCCCCGCCGCACTGGAGGAGATGCCGCGCAATATTTAGACTTTCTTTCCCTGGA
 GCCGGAGCCGGCACCCACGGTGCCAGGCTCACCAGCATCCTCCAAAGGGTACAGCACAGCAGTAGAGC
 CAAGTGGCAGTTTCCGGGCACACACTATGGTCTGGTCACTACTATCGGAGCAGCCTGGGTATGGGGT
 GCAGCGCAGTTTCCTCCTTCCAGAACAAGACGCCACCAGATGCCTATTCCAGCATGGCCAAGGCCAGGGT
 GGCCCTCCCGCCAGCCTCACCTTTCCTGCCATGCTGGGCTGTACTGCTCGCACCACAAAGCCGCGG
 CTACCCACCTGGGGCCACCCATTACATGTGTTGGGCACCCGGGGTCCCACGTTTACTGGCGAAAGCTC
 TGCACAGGCTGTGCTGGCACCCTCCAGGAACAGCCTCAATGCTGACTTGTACGAGCTGGGCTCCACGGTG
 CCCTGGTCTGCAGCTCCACTGGCAGCGCCGACTCGCTGCAGAAGCAGGGTCTAGAAGCCTCGGGCCGC
 ATGTGGCTTTTCGGGCTGGCCCCAGCAGGACCACTCCTTCAACAACCCACAACCTGAGCCCTCACTGCC
 CGCCCCAACACGGTCACCGCCGTGACGGCCGACACATCCTTACCCTGTGAAGAGCGTGCCTGTGCTG
 CGGCCAGCCCCAGACAGCCGTGGGGCCCTCGCACCCCGCTGGTGGTGGCCTCGCCACAGCACCTGCCA
 CTGAGAGCCTGGAGACGAAGGAGGGCAGCGCAGGCCACACCCGCTGGATGTGGACTATGGCGGCTCCGA
 GCGCAGGTGCCACCCGCTCCGTACCCAAAGCACTTGTGCTGCCAGTAAGTCTGAGCAGTACAGCGTG
 GACCTGGACAGCCTGTGCACCAGTGTGCAGCAGAGTCTGCGAGGGGGCACTGAGCAAGACAGGAGTGACA



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AGAGCCCAAAGGTGCGAAGGGAGACAAAGCTGGCAGAGACAAAAAGCAGATTCAGACCTCCCCGGTGCC
TGTCGCGAAGAATAGCAGAGATGAAGAGAAGAGAGAGTCTCGCATCAAGAGTTACTCCCCTTATGCCTTC
AAATTCTTCATGGAGCAACACGTGGAGAATGTCATCAAAACCTACCAGCAGAAGGTCAGCCGGAGGCTAC
AGCTGGAGCAGGAAATGGCCAAAGCTGGGCTCTGTGAGGCCGAGCAGGAGCAGATGAGGAAGATCCTCTA
CCAGAAGGAGTCTAACTACAACCGGTGAAGAGGGCCAAGATGGACAAGTCCATGTTTGTAAAAATCAAG
ACTCTAGGCATCGGTGCCTTTGGGGAAGTGTGCCTCGCTTGTAGCTGGACACTCAGCCTCTGTACGCCA
TGAAGACTCTCAGGAAGAAGGATGTCCTGAACCCGGAATCAAGTGGCCCATGTCAAGGCTGAGAGGGACAT
CCTGGCTGAAGCAGACAATGAGTGGGTGGTCAAACCTCTACTACTCCTTCCAGGACAAGGACAGCCTGTAC
TTTGTGATGGACTACATACCAGGCGGGATATGATGAGCCTGCTGATCAGGATGGAGGTCTTCCCTGAGC
ACCTGGCCCGCTTCTACATTGCAGAGTTGACCCTGGCCATTGAAAGTGTCCACAAGATGGGCTTTATCCA
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TGCACTGGATTCAAGTGGACTCACAATCCAAGTACTACCAGAAAAGGGAACACATGAGACAGGACAGCA
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GAGCACGCTGCATATCCCTACGCAGGTGAGGCTCAGCGCTGAGGCCCGAGACCTCATCACGAAGCTGTGC
TGCGCGGTGACTGCCGCTGGGCAGGGATGGGGCAGATGACCTCAAGGCACACCCGTTCTTCAACACCA
TCGACTTTTCCGTGACATCCGAAAGCAGCCTGCACCCTACGTCACCCACCATCAGCCACCCCATGGACAC
CTCCAATTTTGAACCGGTGGATGAAGAAAGCCCTGGCACGAGGCCAGCGGAGAGAGCGCCAAGGCTGG
GACACGCTGGCCTCCCCAGCAGCAAGCATCCAGAGCACGCCCTTCTATGAGTTCACCTCCCGAGGTTCT
TCGATGACAACGGCTATCCCTTCCGGTGCCCGAAGCCCTCAGAGCCCGCAGAGAGTGCAGACCCAGGGGA
TGCGGACTTGAAGGTGCGGCCGAGGGCTGCCAGCCGGTACGTGTA
    
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

SgfI-MluI

ACCN:

NM_015771

Insert Size:

3129 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_015771.2](#), [NP_056586.2](#)
RefSeq Size:

5213 bp

RefSeq ORF:

3129 bp

Locus ID: 50523

UniProt ID: [Q7TSJ6](#)

Cytogenetics: 14 C3

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 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]

Transcript Variant: This variant (A) represents the longer transcript and it encodes the longer protein (isoform 1).