

## Product datasheet for MR226114

### Lats1 (NM\_010690) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Lats1 (NM\_010690) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Lats1  
**Synonyms:** AW208599  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR226114 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGC**C

ATGAAGAGGGGTGAAAAGCCAGAAGGGTACAGACAGATGAGGCCTAAGACCTTTCCTGCCAGCACTACC  
 CTGGCAGCAGCCGACAGATGCTGCAGGAGATCCGAGAATCCCTGAGGAATTTATCAAACCATCTGATGC  
 TTCGAAGGCCGAGCATAACCTGAATAAGATGTCGACTGAAGATCCAGGCAGGTGAGAAATCCACCCAAA  
 TTTGGCACACATCATAAAGCCTTGCAAGAAATTCGAAACTCTCTACTACCATTGCAAATGAAACAAGTT  
 CTTCCCGAGCCCTTCAGAAGTTAATCCACAGATGTTTCAGGATTTGCAGGCTGTGGCTTTGATGAGGA  
 CATGGTTATTCAAGCTCTTCAGAAAACCAATAACAGAAGCATAGAAGCCGCTGTTGAATTCATTAGTAAA  
 ATGAGTTACCAAGACCCTCGTCGAGAGCAGATGTCTGCAGCAGCTGCCAGGCCTATTAATGCCACCATGA  
 AACCAGGAAATGTGCAACATTCAATTAACCGAAAACAAAGCTGGAAAGGTTCTAAAGAGTCTCTAGTTCC  
 TCAGAGACACGGCCCATCTTAGGAGAAAATGTGGTTTATCGTTCTGAAAGCCCCAACTCACAGGCGGAT  
 GTAGGAAGACCTGTCTGGATCCGGCATTGCAGCATTGCTCAAGCTCACCCAAGCAATGGACAGAGAG  
 TGAACCCCCACCACCACCTCAAGTTAGGAGTGTACTCCTCCACCACCTCCGAGAGGCCAGACCCACC  
 TCCCGAGGCACCACTCCCCCTCCCCCTCATGGGAACCAAGCTCTCAGACAAAGCGCTACTCTGGGAAC  
 ATGGAGTACGTAATCTCCCGAATCTCCCCTGTTCCACCTGGGGCGTGGCAGGAGGGTACCCTCCACCAC  
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 GGTGGTCACTGATTTTATCGTGCACCAAAATGTCCCCTGTTCTGTGACTCGGCAGCCACCACCTC  
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 ATCATTGCGCAATGAAACGTTCCCTCAGTCGATGATGGTGCCCAACAGGAACAGTCATAACATGGAGCTT  
 TATAATATTAATGTCCTGGACTGCAAACAGCCTGGCCCCAGTCGCTTCTGCTCCTGCGCAGTCATCCC  
 CAAGCGGTGGGCATGAAATTCCTACATGGCAACCTAACATACCAGTGAGGTCAAATCTTTTAATAACCC  
 ATTAGGAAGTAGCAAGTCACTCTGCTAATTCTCAGCCTTCTGCCACTACAGTCACTGCCATCACACC



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GCTCCTATTCAACAGCCCGTGAAAAGCATGCGCGTCTGAAACCAGAGCTGCAGACTGCTTTAGCCCCAA  
CCCATCCTTCTTGGATGCCACAGCCAGTTCAGACTGTTGAGCCTACCCCTTTTTCTGAGGGTACAGCTTC  
AAGTGTGCTGTGCATCCCACCTGTTGCTGAAGCTCCAAGCTATCAAGGTCCACCACCGCCTTATCCAAAA  
CATCTGTACACCAAAACCCATCTGTCCCTCCATATGAGTCAGTAAGTAAGCCCTGCAAAGATGAACAGC  
CTAGCTTACCCAAGGAAGATGATAGTGAGAAGAGTGCGGACAGTGGTACTCTGGGGATAAAGAAAAAGAA  
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GGATCAAATGAGAAAGATGCTTTGCCAGAAAGAGTCTAACTATATTTCGTCTTAAAAGGGCTAAAAATGGAC  
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ACAAATGAAGTTATCAACTGGCAAACCTCTCTCACATCCCTCCTCAAGCTAAGCTGAGTCTGAAAGCC  
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AGGCTCATCCATTTTTAAGACCATCGATTTCTCTAGTGATCTGAGACAGCAGTCTGCTTCATACATCCC  
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ACAAGGATGACGACGATAAGGTTTAA

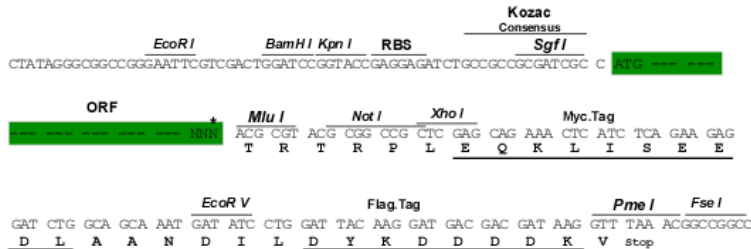
Protein Sequence: >MR226114 protein sequence  
 Red=Cloning site Green=Tags(s)

MKRGEKPEGYRQMRPKTFPASNYPGSSRQMLQEIRESLRNL SKPSDASKAEHNLNKMSTEDPRQVRNPPK  
 FGTHHKALQEIRNSLLPFANETSSSRSPSEVNPQMFQDLQAAGFDEDMVIQALQKTNNRSIEAAVEFISK  
 MSYQDPRREQMSAAAARPINATMKPGNVQHSINRKQSWKGSKESLVPQRHGPSLGENVVYRSESPNSQAD  
 VGRPLSGSGIAAFAQAHPNSNGQRVNPPPPQVRSVTPPPPPRGQTTPPRGTTTPPPPSWEPSSQTKRYSGN  
 MEYVISRI SPVPPGAWQEGYPPPLTTS PMNPPSQAQRAISSVPVGRQPIIMQSTSKFNF TPGRPGVQNG  
 GGQSDFIVHQNVPTGSVTRQPPPPYPLTPANGQSPSALQTGASAAPPSFANGNVPQSMVMNRSNHNMEL  
 YNINVPGLQTAWPQSSSAPAQSSPSGGHEIPTWQPNIPVRSNSFNPLGSRASHSANSQPSATTVTAITP  
 APIQQPVKSMRVLKPELQTALAPTHPSWMPQPVQTVQPTPFSEGTASSVPVIPPVAEAPSYQGPPPPYPK  
 HLLHQNPVPPYESVSKPCKDEQPSLPKEDDSEK SADS GSDGDKKQITTSPI TVRKNKKDEERRESRI  
 QSYSPPQAFKFFMEQHVENVL KSHQQLHRKKQLENEMMRVGLSQDAQDQMRKMLCQKESNYIRLKRAKMD  
 KSMFVKIKTLGIGAFGEVCLARKVDTKALYATKTLRKKDVL LRNQVAHVKAERDILAEADNEWVRLYY S  
 FQDKDNL YFVMDYIPGGDMSSL IIRMGIFPENLARFYIAELTCAVESVHKMGFIHRDIKPDNILIDRDGH  
 IKLTDFGLCTGFRWTHDSKYYQSGDHPRQDSMDF SNEWGDP SNCR CGDRLKPLERRAARQHQRCLAHS LV  
 GTPNYIAPEVLLRTGYTQLCDWWSVGVILFEMLVGQPPFLAQTPLETQMKVINWQTS LHIPPQAKLSPEA  
 SDLI IKLCRGPEDRLGKNGADEIKAHPPFKTIDFSSDLRQQSASYIPKITHPTDTSNFDVPDPK LWS DG  
 SEENISDTLNGWYKNGKHPEHAFYEFTFRFFDDNGYPY NPKPIEY EYIHSQGSQQSDEDDQHTSSD  
 GNNRDLVYV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI  
 Cloning Scheme:

Cloning sites used for ORF Shuttling:

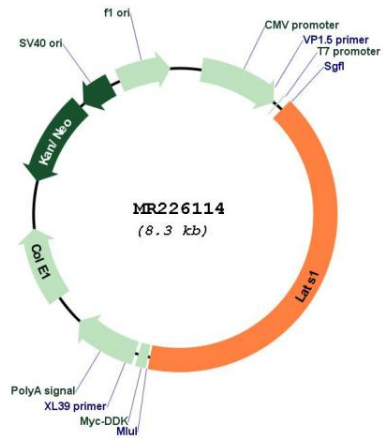


\* The last codon before the Stop codon of the ORF

ACCN: NM\_010690  
 ORF Size: 3390 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_010690.1</a> , <a href="#">NP_034820.1</a>
<b>RefSeq Size:</b>	7222 bp
<b>RefSeq ORF:</b>	3390 bp
<b>Locus ID:</b>	16798
<b>UniProt ID:</b>	<a href="#">Q8BYR2</a>
<b>Cytogenetics:</b>	10 A1
<b>MW:</b>	126.3 kDa
<b>Gene Summary:</b>	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]

Product images:



Circular map for MR226114