

Product datasheet for **SC323550**

LATS2 (NM_014572) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LATS2 (NM_014572) Human Untagged Clone
Tag:	Tag Free
Symbol:	LATS2
Synonyms:	KPM
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323550 sequence for NM_014572 edited (data generated by NextGen Sequencing)

```

ATGAGGCCAAAGACTTTTCTGCCAGACTTATTCTGAAATAGCCGGCAGCGACTGCAA
GAGATTTCGTGAGGGGTTAAAACAGCCATCCAAGTCTTCGGTTTCAGGGGCTACCCGAGGA
CCAAACAGTGACACTTCCCTGGATGCCAAAGTCTGGGGAGCAAAGATGCCACCGAGCAG
CAGCAGCAGATGAGAGCCACCCCAAAGTTCGGACCTTATCAGAAAGCCTTGAGGGAAATC
AGATATTCTTGTGCTTTTGCTAATGAATCGGGCACCTCTGCAGCTGCAGAAGTGAAC
CGGCAAATGCTGCAGGAAGTGGTGAACGCAGGATGCGACCAGGAGATGGCTGGCCGAGCT
CTCAAGCAGACTGGCAGCAGGAGCATCGAGGCCGCCCTGGAGTACATCAGCAAGATGGGC
TACCTGGACCCGAGGAATGAGCAGATTGTGCGGGTCATTAAGCAGACCTCCCAGGAAAG
GGGCTCATGCCAACCCAGTGACGCGGAGGCCAGCTTCAAGGAACCGGCGATTTCGTTT
GGTCTACCACAGCTGAGCGGTACCCCTACGAGGGCCCAAGCTTCGGCGCTGACGGC
CCCACGGCGCTGGAGGAGATGCCGCGGCGTACGTGGACTACCTTTCCCGGAGTCGGC
CCCCACGGGCCCGGCCACCAGCACCAGCACCCACCCAAGGGCTACGGTGCCAGCGTAGAG
GCAGCAGGGGCACACTTCCCGCTGCAGGGCGCGCACTACGGGCGGCCGCACTGTGGTG
CCTGGGAACCCCTGGGCTACGGAGTGCAGCGCAGCCCTCCTTCCAGAGCAAGACGCCG
CCGGAGACCGGGGTTACGCCAGCTGCCACGAAGGGCCAGGGAGGACCGCCAGGCGCC
GGCCTCGCTTTCCACCCCTGCCGCGGGCTCTACGTGCCGACCCACACCACAAGCAG
GCCGCTCCGCGGCCACCAGCTGCATGTGCTGGGCTCCCGCAGCCAGGTGTTCCGCCAGC
GACAGCCCCCGCAGAGCCTGCTCACTCCCTCGCGGAACAGCCTCAACGTGGACCTGTAT
GAATTGGCAGCACCTCCGTCCAGCAGTGGCCGGCTGCCACCCTGGCCCGCGGGACTCC
CTGCAGAAGCCGGGCTGGAGGCGCCGCGCGCACGTGGCCTTCCGGCCTGACTGC
CCAGTGCCAGCAGGACCAACTCCTTCAACAGCCACCAGCCGCGGCCCGGTCCGCCTGGC
AAGGCCGAGCCCTCCCTGCCGCCCCAACACCGTGACGGCTGTACGGCCGCGCACATC
TTGCACCCGGTGAAGAGCGTGCGTGTGCTGAGGCCGAGCCGAGACGGCTGTGGGGCC
TCGCACCCGCTGGGTGCCGCGCTGCCCGGCCCGCCCGCCCGCCCGCCCGCCGCT
GCGGAGGGCTTGACGCCAAGGAGGAGCATGCCCTGGCGCTGGGCGCGCAGGCGCCTTC

```



[View online »](#)

```

CCGCTGGACGTGGAGTACGGAGGCCAGACCGGAGGTGCCCGCCTCCGCCCTACCCGAAG
CACCTGCTGCTGCGCAGCAAGTCGGAGCAGTACGACCTGGACAGCCTGTGCGCAGGCATG
GAGCAGAGCCTCCGTGCGGGCCCAACGAGCCGAGGGCGGCGACAAGAGCCGCAAAAGC
GCCAAGGGGGACAAGGGCGGAAAGGATAAAAAGCAGATTCAGACCTCTCCCGTTCGCCGTC
CGCAAAAACAGCAGAGACGAAGAGAAGAGAGAGTACGCATCAAGAGCTACTCGCCATAC
GCCTTTAAGTTCTTCATGGAGCAGCAGTGGAGAATGTCATCAAAACCTACCAGCAGAAG
GTTAACCGGAGGCTGCAGCTGGAGCAAGAAATGGCCAAAGCTGGACTCTGTGAAGCTGAG
CAGGAGCAGATGCGGAAGATCCTCTACCAGAAAGAGTCTAATTACAACAGGTTAAAGAGG
GCCAAGATGGACAAGTCTATGTTTGTCAAGATCAAAACCCTGGGGATCGGTGCCTTTGGA
GAAGTGTGCCTTGCTTGAAGGTGGACACTCACGCCCTGTACGCCATGAAGACCCTAAGG
AAAAAGGATGTCCTGAACCGGAATCAGGTGGCCACGTCAAGGCCGAGAGGGACATCCTG
GCCGAGGCAGACAATGAGTGGTGGTCAAACCTCTACTCTCTTCCAAGACAAAGACAGC
CTGTACTTTGTGATGGACTACATCCCTGGTGGGACATGATGAGCCTGCTGATCCGGATG
GAGGTCTTCCCTGAGCACCTGGCCCGTCTACATCGCAGAGCTGACTTTGGCCATTGAG
AGTGTCCACAAGATGGGCTTCATCCACCGAGACATCAAGCCTGATAACATTTTGATAGAT
CTGGATGGTACATTAACCTCACAGATTTCCGGCCTCTGCACTGGGTTAGGTGGACTCAC
AATTTCAAATATTACCAGAAAGGGAGCCATGTCAGACAGGACAGCATGGAGCCCAGCGAC
CTCTGGGATGATGTGCTAACTGTCCGGTGTGGGGACAGGCTGAAGACCCTAGAGCAGAGG
GCGCGGAAGCAGCACCAGAGGTGCCTGGCACAATCACTGGTGGGGACTCCAAACTACATC
GCACCCGAGGTGCTCCTCCGCAAAGGGTACACTCAACTCTGTGACTGGTGGAGTGTGGA
GTGATTCTCTTCGAGATGCTGGTGGGGCAGCCGCCCTTTTGGCACCTACTCCCACAGAA
ACCCAGCTGAAGGTGATCAACTGGGAGAACACGCTCCACATTCAGCCCAGGTGAAGCTG
AGCCCTGAGGCCAGGACCTCATCACCAAGCTGTGCTGCTCCGACAGACCACCGCTGGGG
CGGAATGGGGCCGATGACCTGAAGGCCACCCCTTCTTCAGCGCATTGACTTCTCCAGT
GACATCCGGAAGCAGCCAGCCCCCTACGTTCCACCATCAGCCACCCATGGACACCTCG
AATTTCCGACCCCGTAGATGAAGAAAGCCCTTGAACGATGCCAGCGAAGGTAGCACCAAG
GCCTGGGACACACTCACCTCGCCCAATAACAAGCATCCTGAGCACGCATTTTACGAATTC
ACCTTCCGAAGGTTCTTTGATGACAATGGCTACCCCTTTCGATGCCCAAAGCCTTCAGGA
GCAGAAGCTTACAGGCTGAGAGCTCAGATTTAGAAAGCTCTGATCTGGTGGATCAGACT
GAAGGCTGCCAGCCTGTGACGTGTAG
    
```

Clone variation with respect to NM_014572.2

5' Read Nucleotide Sequence:

```

>OriGene 5' read for mutant NM_014572 unedited
ACGCCCCACAGCAAAGGGCGGTAGGCGTTACGGTGGGAGGACATATAAGCAGAGCACATAAAGGGCACA
CCATAGAATAACAAGCAACTCGAACTCAAAGCAGCGGCCGCGAATACGGCACGAGGAACAAAATCAAAGG
AAATAATAATGAAAGAATGACTACAACAACTGATACTATTGACAGTATTTTTTTTTTAAATAATAAAAC
ACTTTTAAGAAGATTGTATTTATGGTAAAAGGAACTGGACTAACAATGAGGCCAAAGACTATTCCTGCC
ACGACTTATTCTGGAAATAGCCGGCAGCGACTGCAAGAGATTCGTGAGGGGTTAAAGCAGCCATCCAAGA
CTTCGGTTTCAGGGGCTACCCGCAGGACCAACAGTGACACTTCCCCTGGATGCCAAAGTCCCTGGGGAGCA
AAGATGCCACCCAGGCAGCAGCAGATGAGAGCCACCCCAAAGTTCGGACCTTATCAGAAGCCTTGA
GGAAATCAGATATTCTTGTGCTTTTGTCTAATGATCGGGCACTTCTGCAGCTGCAGAAGTTGAACCGCA
ATGCTGCAGACCTGTGACCCGAGAATGCGACCAGAGAATGCCTGCAAGCTTCTCAGGCAAACCTGCAGCAG
GAGCATCAAGCCGCTGGAAGTCACTCAGCAGAATGGCCTACCTGAACTAGGAATTGACCAATTGGCCGG
TTCATTACCAAACCTCCAGGAAGGCTCTAGTGCCACCATGGACCGAGGCCACTCTCAAGGAACCGGCATT
CTTTGGTCTCAACCACTGAACGGTACCTCAAAGGGCAAGCTTTGGCTGTAAAGGCCAAAGGCTTGAGAAT
TGCTGCGTCATTGGTAATCTTTCCGAATGGCCGAAGGCCGCAAGACAGAACTCGAGGGTCATGGTGCACG
TTAGAGCACCAGGCACATCG
    
```

Kinase Domain Sequence: >SC323550 kinase domain raw sequence. By performing [BLASTX](#) analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation

```
AAWGGMAGTCTATGTTTGTGTCAGATCAAACCCTGGGGATCGGTGCCTTTGGAGAAGTGTGCCTTGCTTGT
AAGGTGGACACTACGCCCTGTACGCCATGATGACCCTAAGGAAAAAGGATGCTCTGAACCGGAATCAGG
TGGCCACGTCAAGGCCGAGAGGGACATCCTGGCCGAGGCAGACAATGAGTGGGTGGTCAAACCTCTACTA
CTCCTTCCAAGACAAAGACAGCCTGTACTTTGTGATGGACTACAT
```

Restriction Sites: Please inquire

ACCN: NM_014572

Insert Size: 4200 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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. [More info](#)

OTI Annotation: This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." [Cell. 2008 May p536-548.](#)

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_014572.1](#), [NP_055387.1](#)

RefSeq Size: 4098 bp

RefSeq ORF: 3267 bp

Locus ID: 26524

UniProt ID: [Q9NRM7](#)

Cytogenetics:	13q12.11
Domains:	UBA, pkinase, S_TK_X, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Gene Summary:	<p>This gene encodes a serine/threonine protein kinase belonging to the LATS tumor suppressor family. The protein localizes to centrosomes during interphase, and early and late metaphase. It interacts with the centrosomal proteins aurora-A and ajuba and is required for accumulation of gamma-tubulin and spindle formation at the onset of mitosis. It also interacts with a negative regulator of p53 and may function in a positive feedback loop with p53 that responds to cytoskeleton damage. Additionally, it can function as a co-repressor of androgen-responsive gene expression. [provided by RefSeq, Jul 2008]</p>