

Product datasheet for **RG234723**

LATS1 (NM_001270519) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LATS1 (NM_001270519) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LATS1
Synonyms:	WARTS; wts
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG234723 representing NM_001270519
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

ATGAAGAGGAGTAAAAGCCAGAAGGATATAGACAAATGAGGCCTAAGACCTTCTGCCAGTAAGTATA
 CTGTCAGTAGCCGCAAAATGTTACAAGAAATTCGGGAATCCCTTAGGAATTTATCTAAACCATCTGATGC
 TGCTAAGGCTGAGCATAACATGAGTAAATGTCAACCGAAGATCCTCGACAAGTCAGAAATCCACCCAAA
 TTTGGGACGCATCATAAAGCCTTGCAAGAAATTCGAAACTCTCTGCTTCCATTTGCAAAATGAAACAAATT
 CTTCTCGGAGTACTTCAGAAGTTAATCCACAAATGCTTCAAGACTTGCAAGCTGCTGGATTTGATGAGGA
 TATGGTTATAACAAGCTCTTCAGAAAATAACAACAGAAGTATAGAAGCAGCAATTGAATTCATTAGTAAA
 ATGAGTTACCAAGATCCTCGACGAGAGCAGATGGCTGCAGCAGCTGCCAGACCTATTAATGCCAGCATGA
 AACCAGGGAATGTGCAGCAATCAGTTAACCGCAAACAGAGCTGGAAGGTTCTAAAGAATCCTTAGTTCC
 TCAGAGGCATGGCCCGCCACTAGGAGAAAGTGTGCCTATCATTCTGAGAGTCCCAACTCACAGACAGAT
 GTAGGAAGACCTTTGTCTGGATCTGGTATATCAGCATTTGTTCAAGCTCACCTAGCAACGACAGAGAG
 TGAACCCCCACCAACACCTCAAGTAAGGAGTGTTACTCTCCACCACCTCCAAGAGGCCAGACTCCCCC
 TCCAAGAGGTACAACCTCCACCTCCCCCTTCATGGGAACCAAACTCTCAACAAAGCGCTATTCTGGAAC
 ATGGAATACGTAATCTCCGAATCTCTCTGTCCACCTGGGCGATGGCAAGAGGGCTATCTCCACCAC
 CTCTCAACACTTCCCCATGAATCTCTTAATCAAGGACAGAGAGGCATTAGTTCTGTTCTGTTGGCAG
 ACAACCAATCATCATGCAGAGTTCTAGCAAAATTAACCTTCCATCAGGGAGACCTGGAATGCAGAATGGT
 ACTGGACAAACTGATTTTCATGATACACCAAAATGTTGTCCCTGCTGGCACTGTGAATCGGCAGCCACCAC
 CTCCATATCCTCTGACAGCAGCTAATGGACAAAGCCCTTCTGCTTTACAAACAGGGGGATCTGCTGCTCC
 TTCGTCATATACAAATGGAAGTATTCCTCAGTCTATGATGGTGCCAAACAGAAATAGTCATAACATGGAA
 CTATATAACATTAGTGACCTGGACTGCAACAAATTGGCCTCAGTCATCTTCTGCTCCAGCCCAGTCAT
 CCCCAGCAGTGGGCGATGAAATCCCTACATGGCAACCTAACATACCAGTGAGGTCAAATCTTTTAAATAA
 CCCATTAGGAAATAGAGCAAGTCACTCTGCTAATTCTCAGCCTTCTGCTACAACAGTCACTGCAATTACA
 CCAGCTCCTATTCAACAGCCTGTGAAAAGTATGCGTGTATTAAACCAGAGCTACAGACTGCTTTAGCAC
 CTACACACCCTTCTTGATACCACAGCCAATTCAAACCTGTTCAACCCAGTCCTTTTCTGAGGGAACCGC
 TTCAAATGTGACTGTGATGCCACCTGTTGCTGAAGCTCCAACTATCAAGGACCACCACCACCTACCCA
 AAACATCTGCTGCACAAAACCCATCTGTTCTCCATACGAGTCAATCAGTAAGCCTAGCAAAGAGGATC
 AGCCAAGCTTGCCCAAGGAAGATGAGAGTGAAAAGAGTTATGAAAATGTTGATAGTGGGGATAAAGAAAA
 GAAACAGATTACAACCTCACCTATTACTGTTAGGAAAAACAAGAAAGATGAAGAGCGAAGGGAATCTCGT
 ATTCAAAGTTATTCTCTCAAGCATTTAAATTCTTTATGGAGCAACATGTAGAAAATGTACTCAAATCTC
 ATCAGCAGCGTCTACATCGTAAAAACAATTAGAGAATGAAATGATGCGGGTAAACCTTTTAAATGTC
 CATTTTATACTTAATCATCTGTTTGCTGGTGTATT

ACGCGTACGCGGCGGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG234723 representing NM_001270519
 Red=Cloning site Green=Tags(s)

MKRSEKPEGYRQMRPKTFPASNYTVSSRQMLQEIRESLRNL SKPSDAAKAEHNMSKMSTEDPRQVRNPPK
 FGTHHKALQEIRNSLLPFANETNSSRSTSEVNPQMLQDLQAAGFDEDMVIQALQKTNNRSIEAAIEFISK
 MSYQDPRREQMAAAAARPINASMKPGNVQQSVNRKQSWKGSKESLVPQRHGPPLGESVAYHSESPNSQTD
 VGRPLSGSGISAFVQAHPNSNGQRVNPPPPQVRSVTTPPPPPRGQTTPPPRGTTTPPPPSWEPNSQTKRYSNG
 MEYVISRISPVPPGAWQEGYPPPLNTSPMNPPNQGQRGISSVPVGRQPIIMQSSSKFNFPGRPGMQNG
 TQQTDFMIHQNVVPAGTVNRQPPPPYPLTAANGQSPSALQTGGS AAPSSYTNGSIPQSMMPNRSNHNME
 LYNISVPLQTNWPQSSSAPAQSSPSSGHEIPTWQPNIPVRSNSFNPLGNRASHANSQPSATTVTAIT
 PAPIQQPVKSMRVLKPELQALAPTHPSWIPQPIQTVQPSPFEGTASNVTVMPPVAEAPNYQGPPPPYP
 KHLHQNPSVPPYESISKPSKEDQPSLPKEDESEKSYENVDSGDKEKKQITTSPTIVRKNKKDEERRESR
 IQSYSPQAFKFFMEQHVENVLKSHQRLHRKKQLENEMMRVKPFKMSIFILNHLFAWCLF

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001270519

ORF Size: 2070 bp

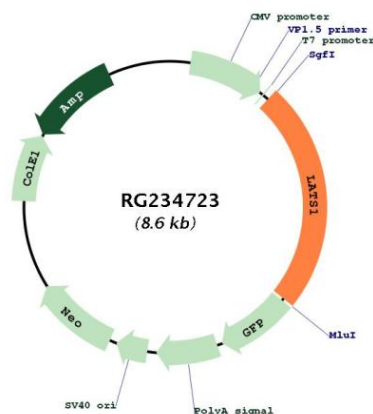
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<u>NM_001270519.1, NP_001257448.1</u>
RefSeq Size:	2743 bp
RefSeq ORF:	2073 bp
Locus ID:	9113
UniProt ID:	<u>O95835</u>
Cytogenetics:	6q25.1
Protein Families:	Druggable Genome, Protein Kinase
Gene Summary:	The protein encoded by this gene is a putative serine/threonine kinase that localizes to the mitotic apparatus and complexes with cell cycle controller CDC2 kinase in early mitosis. The protein is phosphorylated in a cell-cycle dependent manner, with late prophase phosphorylation remaining through metaphase. The N-terminal region of the protein binds CDC2 to form a complex showing reduced H1 histone kinase activity, indicating a role as a negative regulator of CDC2/cyclin A. In addition, the C-terminal kinase domain binds to its own N-terminal region, suggesting potential negative regulation through interference with complex formation via intramolecular binding. Biochemical and genetic data suggest a role as a tumor suppressor. This is supported by studies in knockout mice showing development of soft-tissue sarcomas, ovarian stromal cell tumors and a high sensitivity to carcinogenic treatments. [provided by RefSeq, Apr 2017]

Product images:



Circular map for RG234723