

Product datasheet for **SC323467**

LOK (STK10) (NM_005990) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LOK (STK10) (NM_005990) Human Untagged Clone
Tag:	Tag Free
Symbol:	LOK
Synonyms:	LOK; PRO2729
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323467 sequence for NM_005990 edited (data generated by NextGen Sequencing)

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ATGGCTTTTGCCAATTTCCGCCGCATCCTGCGCCTGTCTACCTTCGAGAAGAGAAAGTCC
CGCGAATATGAGCACGTCGCCCGCGACCTGGACCCCAACGAGGTGTGGGAGATCGTGGGC
GAGCTGGGCGACGGCGCCTTCGGCAAGGTTTACAAGGCCAAGAATAAGGAGACGGGTGCT
TTGGCTGCGGCCATGGTCATTGAAACCAAGAGTGAGGAGGAGCTGGAGGACTACATCGTG
GAGATTGAGATCCTGGCCACCTGCGACCACCCCTACATTGTGAAGCTCCTGGGAGCCTAC
TATCACGACGGGAAGCTGTGGATCATGATTGAGTTCTGTCCAGGGGGAGCCGTGGACGCC
ATCATGCTGGAGCTGGACAGAGGCCTCACGGAGCCCCAGATACAGGTGGTTTGCCGCCAG
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GGCAACGTGCTGATGACCCTCGAGGGAGACATCAGGCTGGCTGACTTTGGTGTGTCTGCC
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CCCGAGGTGGTCAATGTGTGAGACCATGAAAGACACGCCCTACGACTACAAAGCCGACATC
TGGTCCCTGGGCATCACGCTGATTGAGATGGCCAGATCGAGCCGCCACACCACGAGCTC
AACCCCATGCGGGTCTGCTAAAGATCGCCAAGTCAGACCCTCCCACGCTGCTCACGCC
TCCAAGTGGTCTGTAGAGTTCGGTGACTTCTGAAGATAGCCCTGGATAAGAACCAGAA
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TCACCTTCCACCCGCTGGCACCCAGCCAGTCTCAGGACAGTGTGAATGAGCCCTGCAGC
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GCCAACAGATCTCAAAGGCCAGCCAGAGCCGCCAACAGCAGCGCCCTGGAGACCTTG
GGTGGGGAGAAGCTGGCCAATGGCAGCCTGGAGCCACCTGCCAGGCAGCTCCAGGGCCT
TCCAAGAGGGACTCGGACTGCAGCAGCCTCTGCACCTCTGAGAGCATGGACTATGGTACC

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AATCTCTCCACTGACCTGTGCGTGAACAAAGAGATGGGCTCTCTGTCCATCAAGGACCCG
 AAAGTGTACAAAAAACCTCAAGCGGACACGCAAATTTGGTGGATGGTGTGGAGGTG
 AGCATCACCACTCCAAGATCATCAGCGAAGATGAGAAGAAGGATGAGGAGATGAGATTT
 CTCAGGCGCCAGGAACCTCCGAGAGCTTCGGCTGCTCCAGAAAGAAGGCATCGGAACCG
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 AAGCAGCAAGTGGAGAAGATGGAGCAAGACCATGCCGTGCCGCCGGGAGGAGCCAGG
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 AAGAAGGCTCTGGAAGAGGATCTGAACCAGAAGAAGCGGGAGCAGGAGATGTTCTTCAAG
 CTGAGCAGGAGGCGGAGTGCCCAAACCCCTCCACCCCAAGCAAGGCCCAAGTTCTTCC
 CCTACAGTTCTGCGGATGCTTCTTAA

Clone variation with respect to NM_005990.3
 194 a=>t;195 a=>g;756 g=>a;783 t=>c

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_005990 unedited
 ACCCCCCGTCCCAGCAACGGGGCGGAGGCGGTACGGAGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
 ACCGTCAGAATCTTGAATACGACTCACTATAGGGCGGCCGGAATCCGGCACGAGGCGGCACAAGGGAG
 GCGGCCCTGGGGACCTGACAGGGCGGGGCGGGGCGGGCACGCCCGCCTGCGCGGTTCCGGGTGCTC
 CCGGCGCGGCGCTGCCAGGCACACTTGACCGAAGCCGGGCTGCGGGGAAAGGCAGGTCTGGGCAGAAGG
 CGGACACGCTTCTGCGTCCGTGCTTGGGCGATAGTCCGGACACGAAGGCGAGGAGGCGTAAGACAAC
 CCAAGACTTTTCGCGATGGTAATAAAGGGAAGTCTGGATTGGTGGTAACAGACCGGAATAAGTAGGGCA
 GAATCCAAGCAAATAGCCAAATCCGAAAAAAAATAACACCCCTTTAAAAATCCCGAAAACGTTAGGT
 CGTCCCCCGCTATCTT

Kinase Domain Sequence:

>SC323467 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
 CAATKACCACGAGGTKGGGAGWCGTGGGCGAGCTGGGCGACGGCGCCTTCGGCAAGGTTTACAAGGCCA
 AGAATAAGGAGACGGGTGCTTTGGCTGCGGCCATGGTCATTGAAACCAAGAGTGAGGAGGAGCTGGAGGA
 CTACATCGTGGAGATTGAGATCCTGGCCACCTGCGACCACCCTACATTGTGAAGCTCCTGGGAGCCTAC
 TATCACGACGGGAAGCTGTGGATCATGATTGAGTTCTGTCCAGGG

Restriction Sites:

Please inquire

ACCN:

NM_005990

Insert Size:

4700 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).
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:	<ol style="list-style-type: none">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_005990.2 , NP_005981.2
RefSeq Size:	4398 bp
RefSeq ORF:	2907 bp
Locus ID:	6793
UniProt ID:	O94804
Cytogenetics:	5q35.1
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Gene Summary:	This gene encodes a member of the Ste20 family of serine/threonine protein kinases, and is similar to several known polo-like kinase kinases. The protein can associate with and phosphorylate polo-like kinase 1, and overexpression of a kinase-dead version of the protein interferes with normal cell cycle progression. The kinase can also negatively regulate interleukin 2 expression in T-cells via the mitogen activated protein kinase kinase 1 pathway. [provided by RefSeq, Jul 2008]