

Product datasheet for **RC209827**

LOK (STK10) (NM_005990) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LOK (STK10) (NM_005990) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LOK
Synonyms:	LOK; PRO2729
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209827 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTTTTGCCAATTTCCGCCGCATCCTGCGCCTGTCTACCTTCGAGAAGAGAAAGTCCCGCAATATG
 AGCACGTCGCCCGACCTGGACCCCAACGAGGTGTGGGAGATCGTGGGCGAGCTGGGCGACGGCGCCTT
 CGGCAAGGTTTACAAGGCCAAGAATAAGGAGACGGGTGCTTTGGTTGCGGCCAAAGTCATTGAAACCAAG
 AGTGAGGAGGAGCTGGAGGACTACATCGTGAGATTGAGATCCTGGCCACCTGCGACCACCCTACATTG
 TGAAGCTCCTGGGAGCCTACTATCACGACGGGAAGCTGTGGATCATGATTGAGTTCTGTCCAGGGGAGC
 CGTGGACGCCATCATGCTGGAGCTGGACAGAGGCCTCACGGAGCCCAGATACAGGAGGTTTGCCGCCAG
 ATGCTAGAAGCCCTCAACTTCTGCACAGCAAGAGGATCATCCACCGAGATCTGAAAGCTGGCAACGTGC
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 GAAACGAGATTCCTTTCATCGGCACGCCCTACTGGATGGCCCCGAGGTGGTCATGTGTGAGACCATGAAA
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 GCTCACGCCCTCCAAGTGGTCTGTAGAGTTCCTGACTTCTGAAAGATAGCCCTGGATAAGAACCAGAA
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 GGGAGCTGGTGGCTGAGGCCAAGGCCGAGGTGATGGAAGGGATCGAAGACGGCCGGGATGAGGGGGAAGA
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 TGGCAGCCTGGAGCCACCTGCCAGGACCTCCAGGGCCTTCCAAGAGGGACTCGGACTGCAGCAGCCTC
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 GTAACAAGCATGAGCTGCAGCTGGAGCAAATGCATAAACGTTTTTGAACAGGAAATCAACGCCAAGAAGAA
 GTTCTTTGACACGGAATTAGAGAACCTGGAGCGTCAGCAAAAGCAGCAAGTGGAGAAGATGGAGCAAGAC
 CATGCCGTGCGCCCGGGAGGAGGCCAGGCGGATCCGCCTGGAGCAGGATCGGGACTACACCAGGTTCC
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 AGCTGAAGGTGCGGCAGCAACAGGAAAAGCGCGGCTGCCCAAGATCCAGAGGAGTGAGGGCAAGACGCG
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 AAGCAGTTCTCCAGCAGGAGGAGAAGAGGCAGAAAGTCCGAGCGGCTGCAGCAACAGCAGAAACACGAGA
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 GTGCCACCTCCTGGTAGAGCACGAAACCAGAACTGAAGGCCCTGGATGAGAGCCATAACCAGAACCTG
 AAGGAATGGCGGACAAGCTTCGGCCGCGCAAGAAGGCTCTGGAAGAGGATCTGAACCAGAAGAAGCGGG
 AGCAGGAGATGTTCTTCAAGCTGAGCGAGGAGGCGGAGTGCCCAACCCCTCACCCCAAGCAAGGCTGC
 CAAGTTCTCCCCTACAGTTCTGCGGATGCTTCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC209827 protein sequence
 Red=Cloning site Green=Tags(s)

MAFANFRIRLRLSTFEKRKSREYEHVRRDLDPNEVWEIVGELGDGAFGKVKAKNKETGALVAAKVIETK
 SEEELEDYIVEIEILATCDHPYIVKLLGAYYHDGKLMWIMIEFCPGGAVDAIMLELDRGLTEPQIQEVCRQ
 MLEALNFLHSKRRIHRDLKAGNVLMTLEGDIRLADFGVSAKNLKTQKRDSFIGTPYWMapevVMCETMK
 DTPYDYKADIWSLGITLIEMAQIEPPHHELNPMRVLLKIAKSDPPTLLTPSKWSVEFRDFLKIALDKNPE
 TRPSAAQQLLEHPFVSSITSNKALRELVAEAKAEVMEGIEDGRDEGEEEDAVIDAASSTLENHTQNSSEVSP
 SLNADKPLEESPSTPLAPSQSDSVNEPCSQPSGDRSLQTTSPVAVPGNENGLAVPVLPRKSRPVSM
 RIQVAQEKQVAEQGGDLSPAANRSQKASQSRPNSSALETGGEKLANGSLEPPAQAAPGPKRSDSCSSL
 CTSEMDYGTNLSTDLSLNKEMGSLSIKDPKLYKTLKTRKRVVDGVEVSIITTSKIISEDEKKDEEMRF
 LRRQELRELRLQKEEHRNQTQLSNKHELQLEQMHRFEQEIINAKKKFFDTELENLERQQKQVVEKMEQD
 HAVRRREEARRIRLEQDRDYTRFQEQKLKMKKEVKNEVEKLPRQQRKESMKQKMEHTQKKQLLDRDFVA
 KQKEDLELAMKRLTTDNREICDKERECLMKQELLRDREAAWEMEEHQLQERHQLVKQQLKDQYFLQR
 HELLRKHEKEREQMQRYNQRMIEQLKVRQQQEKARLPKIQRSEKTRMAMYKKSLLHNGGSAEQREKI
 KQFSQQEERQKSERLQQQKHENQMRDMLAQCESNMSELQQLQNEKCHLLVEHETQKLKALDESHNQNL
 KEWRDKLRPRKALEEDLNQKKREQEMFFKLSEEAECNPSTPSKAAKFFPYSSADAS

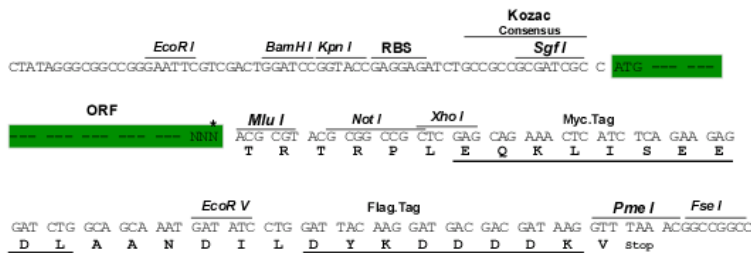
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6156_b08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



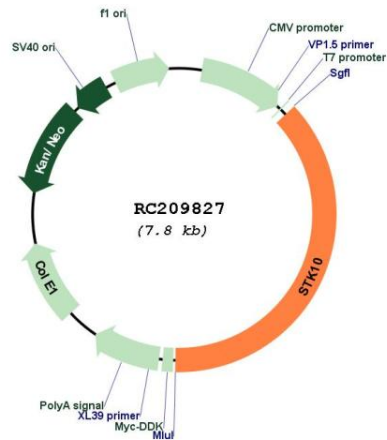
* The last codon before the Stop codon of the ORF

ACCN: NM_005990

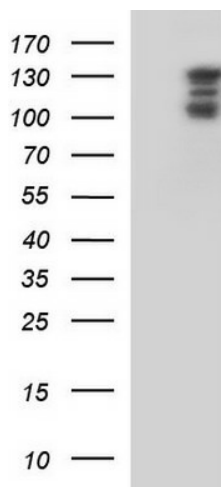
ORF Size: 2904 bp

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:	<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:	6039 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
MW:	112.1 kDa
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]

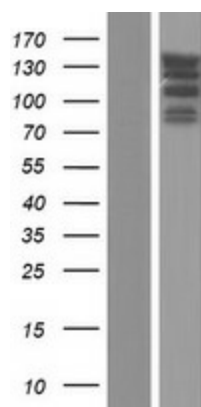
Product images:



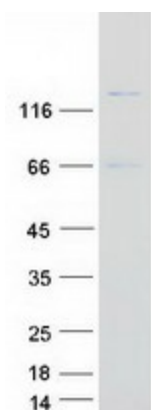
Circular map for RC209827



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY STK10 (Cat# RC209827, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-STK10 (Cat# [TA590589]). Positive lysates [LY416936] (100ug) and [LC416936] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY416936]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209827 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified STK10 protein (Cat# [TP309827]). The protein was produced from HEK293T cells transfected with STK10 cDNA clone (Cat# RC209827) using MegaTran 2.0 (Cat# [TT210002]).