

## Product datasheet for **RC402201**

### LKB1 (STK11) (NM\_000455) Human Mutant ORF Clone

#### Product data:

Product Type:	Mutant ORF Clones
Product Name:	LKB1 (STK11) (NM_000455) Human Mutant ORF Clone
Mutation Description:	K108R
Affected Codon#:	108
Affected NT#:	323
Nucleotide Mutation:	STK11 Mutant (K108R), Myc-DDK-tagged ORF clone of Homo sapiens serine/threonine kinase 11 (STK11) as transfection-ready DNA
Effect:	Peutz-Jeghers syndrome
Symbol:	STK11
Synonyms:	hLKB1; LKB1; PJS
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_000455
ORF Size:	1299 bp
Restriction Sites:	Sgfi-Mlul



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**ORF Nucleotide Sequence:**

>RC402201 representing NM\_000455  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGAGGTGGTGGACCCGCAGCAGCTGGGCATGTTACGGAGGGCGAGCTGATGTGGTGGGATGGACA  
 CGTTCATCCACCGCATCGACTCCACCGAGGTCACTACCAGCCGCGCCGAAGCGGGCCAAGCTCATCGG  
 CAAGTACCTGATGGGGGACCTGCTGGGGGAAGGCTCTTACGGCAAGGTGAAGGAGGTGCTGGACTCGGAG  
 ACGCTGTGCAGGAGGGCCGCAAGATCCTCAAGAAGAAGAAGTTGCGAAGGATCCCCAACGGGGAGGCCA  
 ACGTGAAGAAGGAAATCAACTACTGAGGAGGTTACGGCACAGAAATGTCATCCAGCTGGTGGATGTGTT  
 ATACAACGAAGAGAAGCAGAAAATGTATATGGTGTGGAGTACTGCGTGTGGCATGCAGGAAATGCTG  
 GACAGCGTGCCGGAAGCGTTCCAGTGTGCCAGGCCACGGGTACTTCTGTCAGCTGATTGACGGCC  
 TGGAGTACCTGCATAGCCAGGGCATTGTGCACAAGGACATCAAGCCGGGGAACCTGCTGCTCACCACCGG  
 TGGCACCTCAAATCTCGACCTGGGCGTGGCCGAGGCACTGCACCCGTTTCGGCGGGACGACACCTGC  
 CGGACCAGCCAGGGCTCCCGGCTTCCAGCCGCCGAGATTGCCAACGGCTGGACACCTTCTCCGGCT  
 TCAAGGTGGACATCTGGTCCGGTGGGGTCAACCTCTACAACATCACACGGGTCTGTACCCCTTCGAAGG  
 GGACAACATCTACAAGTTGTTTGAACATCGGGAAGGGGAGCTACGCCATCCCGGGCGACTGTGGCCCC  
 CCGCTCTCTGACTGTGAAAGGGATGCTTGTAGTACGAACCGGCAAGAGGTTCTCCATCCGGCAGATCC  
 GGCAGCACAGCTGGTCCGGAAGAAACATCCTCCGGCTGAAGCACCAGTGCCATCCCACCGAGCCGAGA  
 CACCAAGGACCGGTGGCGCAGCATGACTGTGGTGGCGTACTTGGAGGACCTGCACGGCGGGACGAGGAC  
 GAGGACCTCTTCGACATCGAGGATGACATCATCTACACTCAGGACTTACGGTGGCCGGACAGGTCACG  
 AAGAGGAGGCCAGTCACAATGGACAGCGCCGGGCTCCCAAGGCGTGTGTATGAACGGCACAGAGGC  
 GGCGCAGCTGAGCACAAATCCAGGGCGAGGGCCGGGCCCCCAACCCCTGCCCGCAAGGCCTGCTCCGCC  
 AGCAGCAAGATCCGCCGGCTGTCCGGCTGCAAGCAGCAG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:**

>RC402201 representing NM\_000455  
 Red=Cloning site Green=Tags(s)

MEVVDPPQLGMFTEGELMSVGMDFIHRIDSTEVIYQPRRKRAKLIGKYLMDLLGEGSYGKVKVLDSE  
 TLCRRAVKILKKKLRIPNGEANVKKEIQLLRRLRHRNVIQLVDVLYNEEKQKMYMMEYCVCGMQEML  
 DSVPEKRFVPCQAHGYFCQLIDGLEYLHSQIVHKDIKPNLLTTGGTLKISDLGVAEALHPFAADDTC  
 RTSQGSAPAFQPPEIANGLDTFSGFKVDIWSAGVTLYNITGLYPFEGDNIYKLFENIGKGSYAIPGDCGP  
 PLSDLLKGMLEYEPAKRFSIRQIRQHSWFRKKHPPAEAPVPIPPSPDTKDRWRSMTVVPYLEDLHGADED  
 EDLFDIEDDIIYTQDFVPGQVPEEEASHNGQRRGLPKAVCMNGTEAAQLSTKSRAEGRAPNPARKACSA  
 SSKIRRLSACKQQ

SGP**TRTRRLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**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](mailto: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 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).

**RefSeq:**

[NP\\_000446](#)

**RefSeq Size:**

1299 bp

**RefSeq ORF:**

1302 bp

**Locus ID:**

6794

**Cytogenetics:**

19p13.3

**Domains:**

pkinese, TyrKc, S\_TKc

**Protein Families:**

Druggable Genome, Protein Kinase

**Protein Pathways:**

Adipocytokine signaling pathway, mTOR signaling pathway

**MW:** 47.6 kDa

**Gene Summary:** This gene, which encodes a member of the serine/threonine kinase family, regulates cell polarity and functions as a tumor suppressor. Mutations in this gene have been associated with Peutz-Jeghers syndrome, an autosomal dominant disorder characterized by the growth of polyps in the gastrointestinal tract, pigmented macules on the skin and mouth, and other neoplasms. Alternate transcriptional splice variants of this gene have been observed but have not been thoroughly characterized. [provided by RefSeq, Jul 2008]