

## **Product datasheet for RC402229**

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OriGene Technologies, Inc.

## 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: Q220X

Affected Codon#: 220

Affected NT#: 658

Nucleotide Mutation: STK11 Mutant (Q220X), 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 Neomycin

Selection:

**Vector:** pCMV6-Entry (PS100001)

Tag: Myc-DDK
ACCN: NM 000455

ORF Size: 657 bp
Restriction Sites: Sgfl-Mlul



ORF Nucleotide Sequence:

>RC402229 representing NM\_000455
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGCGATCGCCGCGCGATCGCC

ATGGAGGTGGTGGACCCGCAGCAGCTGGGCATGTTCACGGAGGGCGAGCTGATGTCGGTGGGTATGGACA
CGTTCATCCACCGCATCGACTCCACCGAGGTCATCTACCAGCCGCCGCAAGCGGGCCAAGCTCATCGG
CAAGTACCTGATGGGGGACCTGCTGGGGGAAGGCTCTTACGGCAAGGTGAAGGAGGTGCTGGACTCGGAG
ACGCTGTGCAGGAGGGCCGTCAAGATCCTCAAGAAGAAGAAGATTGCGAAGGATCCCCAACGGGGAGGCCA
ACGTGAAGAAGGAAATTCAACTACTGAGGAGGTTACGGCACAAAAATGTCATCCAGCTGGTGGATGTGT
ATACAACGAAGAAGAAAATGTATATGGTGATGGAGTACTGCGTGTGGCATGCAGGAAATGCTG
GACAGCGTGCCGGAGAAAACGTTTCCCAGTGTGCCAGGCCCACGGGTACTTCTGTCAGCTGATTGACGGCC
TGGAGTACCTGCATAGCCAGGGCATTGTGCACAAGGACATCAAGCCGGGGAACCTGCTGCTCACCACCGG
TGGCACCCTCAAAATCTCCGACCTGGGCGTGGCCGAGGCACTGCACCCGTTCGCGGCGGACGACACCTGC
CGGACCAGCCAGGGCTCCCCGGCTTTC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTCGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:** 

>RC402229 representing NM\_000455
Red=Cloning site Green=Tags(s)

MEVVDPQQLGMFTEGELMSVGMDTFIHRIDSTEVIYQPRRKRAKLIGKYLMGDLLGEGSYGKVKEVLDSE TLCRRAVKILKKKKLRRIPNGEANVKKEIQLLRRLRHKNVIQLVDVLYNEEKQKMYMVMEYCVCGMQEML DSVPEKRFPVCQAHGYFCQLIDGLEYLHSQGIVHKDIKPGNLLLTTGGTLKISDLGVAEALHPFAADDTC RTSQGSPAF

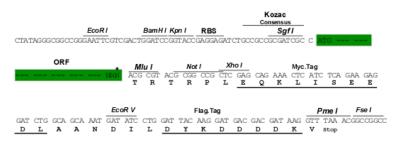
**SGPTRTRRL**EQKLISEEDLAANDILDYKDDDDK**V** 

**Restriction Sites:** 

Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF



**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 <a href="mailto:customport@origene.com">customport@origene.com</a> 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. <u>More info</u>

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: 657 bp
RefSeq ORF: 1302 bp
Locus ID: 6794
Cytogenetics: 19p13.3

**Domains:** pkinase, TyrKc, S\_TKc

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Adipocytokine signaling pathway, mTOR signaling pathway

MW: 24.1 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]