

Product datasheet for RC402241

LKB1 (STK11) (NM_000455) Human Mutant ORF Clone

Product data:

OriGene Technologies, Inc.

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Product Type:	Mutant ORF Clones
Product Name:	LKB1 (STK11) (NM_000455) Human Mutant ORF Clone
Mutation Description:	Y253X
Affected Codon#:	253
Affected NT#:	759
Nucleotide Mutation:	STK11 Mutant (Y253X), 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:	756 bp
Restriction Sites:	Sgfl-Mlul



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	LKB1 (STK11) (NM_000455) Human Mutant ORF Clone – RC402241
ORF Nucleotide Sequence:	<pre>>RC402241 representing NM_000455 Red=Cloning site Blue=ORF Green=Tags(s)</pre>
	TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCC <mark>GCGATCGC</mark> C
	ATGGAGGTGGTGGACCCGCAGCAGCTGGGCATGTTCACGGAGGGCGAGCTGATGTCGGTGGGTATGGACA CGTTCATCCACCGCATCGACTCCACCGAGGTCATCTACCAGCCGCCGCCAAGCGGGCCAAGCTCATCGG CAAGTACCTGATGGGGGACCTGCTGGGGGAAGGCTCTTACGGCAAGGTGAAGGAGGTGCTGGACTCGGAG ACGCTGTGCAGGAGGGCCGTCAAGATCCTCAAGAAGAAGAAGTTGCGAAGGATCCCCAACGGGGAGGCCA ACGTGAAGAAGGAAATTCAACTACTGAGGAGGTTACGGCACAAAAATGTCATCCAGCTGGTGGATGTGTT ATACAACGAAGAAGCAGAAAATGTATATGGTGATGGAGTACTGCGTGTGTGGCATGCAGGAAATGCTG GACAGCGTGCCGGAGAAGCGTTTCCCAGTGTGGCCAGGGCCCACGGGTACTTCTGTCAGCTGGATTGACGGCC TGGAGTACCTGCATAGCCAGGGCATTGTGCACAAGGACATCAAGCCGGGGAACCTGCTGCTCACCACCGG TGGCACCCTCAAAATCTCCGACCTGGGCGGGGCCCGAGGCACTGCACCGGTGGCGGACGACACCTGC CGGACCAGCCAGGGCTCCCCGGCTTGCCAGCCGCCGAGGCACTGCACCGGGTCGCCGGACGACACCTGC CGGACCAGCCAGGGCTCCCCGGCTTCCCAGCCGCCCGAGGATTGCCAACGGCCTGGACACCTTCTCCCGGCT TCAAGGTGGACATCTGGTCGGCCGAGGCACCCCTCTACAACATCACCACGGGTCTG AGCGGACCGACGCGTACGCGGCCGCCCGAGGCACACCTCCACCAGGGCTCTG
Protein Sequence:	TGGATTACAAGGATGACGACGA TAAGGTTTAA
	: >RC402241 representing NM_000455 Red=Cloning site Green=Tags(s)
	MEVVDPQQLGMFTEGELMSVGMDTFIHRIDSTEVIYQPRRKRAKLIGKYLMGDLLGEGSYGKVKEVLDSE TLCRRAVKILKKKKLRRIPNGEANVKKEIQLLRRLRHKNVIQLVDVLYNEEKQKMYMVMEYCVCGMQEML DSVPEKRFPVCQAHGYFCQLIDGLEYLHSQGIVHKDIKPGNLLLTTGGTLKISDLGVAEALHPFAADDTC RTSQGSPAFQPPEIANGLDTFSGFKVDIWSAGVTLYNITTGL
	SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV
Restriction Sites:	Sgfl-Mlul
Cloning Scheme:	Cloning sites used for ORF Shuttling:
	EcoR I BamH I Kpn I RBS Kozac Consensus
	ORF <u>Mlu I Not I Xho I</u> Myc.Tag ACG CGT ACG CGG CCG CTC GAG CAG AAA CTC ATC TCA GAA GAG T R T R P L <u>E Q K L I S E E</u>
	EcoR V Flag.Tag Pme 1 Fse 1 GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TAA ACGGCCGGGCC D L A N D I L D Y K D D D K V stop
	* The last codon before the Stop codon of the ORF

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	LKB1 (STK11) (NM_000455) Human Mutant ORF Clone – RC402241
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 <u>custsupport@origene.com</u> 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:	<u>NP 000446</u>
RefSeq Size:	756 bp
RefSeq ORF:	1302 bp
Locus ID:	6794
Cytogenetics:	19p13.3
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathway	s: Adipocytokine signaling pathway, mTOR signaling pathway
MW:	27.7 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]

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