

## Product datasheet for **RC221327**

### **Snf1lk2 (SIK2) (NM\_015191) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Snf1lk2 (SIK2) (NM_015191) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Snf1lk2
Synonyms:	LOH11CR1I; QIK; SIK-2; SNF1LK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC221327 representing NM\_015191  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGTCATGGCGGATGGCCCGAGGCACTTGCAGCGCGGGCCGGTCCGGGTGGGGTCTACGACATCGAGG  
 GCACGCTGGGCAAGGGCAACTTCGCTGTGGTGAAGCTGGGGCGGCACCGATCACCAAGACGGAGGTGGC  
 AATAAAAAATAATCGATAAGTCTCAGCTGGATGCAGTGAACCTTGAGAAAACTACCGAGAAGTACAATA  
 ATGAAAATGTTAGACCACCCCTCACATAATCAAACCTTTATCAGGTAATGGAGACAAAAGTATGTTGTACC  
 TTGTGACAGAATATGCCAAAAATGGAGAAATTTTGGACTATCTTGCTAATCATGGCCGGTTAAATGAGTC  
 TGAAGCCAGGCGAAAAATCTGGCAAATCCTGTCTGCTGTTGATTATTGTCATGGTCGGAAGATTGTGCAC  
 CGTGACCTCAAAGCTGAAAAATCCTGTGGATAACAACATGAATATCAAATAGCAGATTCGGTTTTG  
 GAAATTTCTTTAAAAGTGGTGAAGTCTGGCAACATGGTGTGGCAGCCCCCTTATGCAGCCCCAGAAGT  
 CTTTGAAGGGCAGCAGTATGAAGGACCACAGCTGGACATCTGGAGTATGGGAGTTGTTCTTTATGCCTT  
 GTCTGTGGAGCTCTGCCCTTTGATGGACCGACTCTTCAAATTTGAGGCAGAGGGTCTGGAAGGAAGAT  
 TCCGGATTCCGTATTTTCATGTCAGAAGATTGCGAGCACCTTATCCGAAGGATGTTGGTCTAGACCCATC  
 CAAACGGCTAACCATAGCCCAAATCAAGGAGCATAAATGGATGCTCATAGAAGTTCCTGTCCAGAGACCT  
 GTTCTCTATCCACAAGAGCAAGAAAAATGAGCCATCCATCGGGGAGTTTAAATGAGCAGGTTCTGCGACTGA  
 TGCACAGCCTTGGAAATAGATCAGCAGAAAAACATTGAGTCTTTCAGAGAACAAGAGCTATAACCACTTTGC  
 TGCCATTTATTTCTTGTGGTGGAGCGCCTGAAATCACATCGGAGCAGTTTCCAGTGGAGCAGAGACTT  
 GATGGCCGCCAGCGTCGGCCTAGCACCATTGCTGAGCAAACAGTTGCCAAGGCACAGACTGTGGGGCTCC  
 CAGTACCATGCATTACCGAACATGAGGCTGCTGCGATCTGCCCTCTCCCCAGGCATCCAACGTGGA  
 GGCCTTTTCATTTCCAGCATCTGGCTGTAGGCGGAAGCTGCATTTCATGGAAGAAGAGTGTGTGGACACT  
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 CCAGCAACATGATGGAGACCTCCATTGACGAAGGGCTGGAGACAGAAGGAGAGGCCGAGGAAGACCCCGC  
 TCATGCCTTTGAGGCATTTTCAGTCCACACGCGAGCGGCAGAGACGGCACACTCTGTGAGAAGTGACCAAT  
 CAACTGGTCGTGATGCCTGGGGCAGGAAAAATTTCTCCATGAATGACAGCCCTCCCTTGACAGTGTGG  
 ACTCTGAGTATGATATGGGGTCTGTTTCAGAGGGACCTGAACTTTCTGGAAGACAACCCCTCCCTTAAGGA  
 CATCATGTTAGCCAATCAGCCTTACCCCGCATGACATCTCCCTTCATAAGCCTGAGACCTACCAACCCA  
 GCCATGCAGGCTCTGAGCTCCCAGAAACGAGAGGTCCACAACAGGTCTCCAGTGAAGTTCAGAGAGGGCC  
 GCAGAGCATCAGATACCTCCCTACCCAGGGAATTGTAGCATTTAGACAACATCTTCAGAATCTGGCTAG  
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 AACCTGGCGCCGGCGGCTCCTCAGCTCCAGGACCTTGCTAGCAGCTGCCCTCAGGAAGAAGTTTCTCAGC  
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 CCAGTACCTGCAGCAGACTCCAGAAGCCAGCCTTCTGTCAAAGGCCAGAACACCTGTGACGCTTTAT  
 TGCAAAGAACCACCGGGAGCCTTGAGCAGCAGCTGCAGGAACATAGGCTCCAGCAGAAGCGACTTTTC  
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 AAGTCAGCAGCTGCCCTTCCCCGCCAGGAGACTCCACCGCTTCTCAGCAGGCCCCACCGTTTCAGCCTG  
 ACCCAGCCCTGAGCCCCGTCTGGAGCCTTCTCCGAGCAGATGCAATACAGCCCTTTCTCAGCCAGT  
 ACCAAGAGATGCAGTTCAGCCCTGCCCTCCACTTCCGGTCCCCGGGCTGCTCCTCCTCTGCCACGCA  
 GCTACAGCAGCAGCAGCCGCCACCACCACCCTCCACCACCACGACAGCCAGGAGCTGCCCCAGCC  
 CCCTTACAGTTCTCCTATCAGACTTGTGAGCTGCCAAGCGCTGCTTCCCTGCGCCAGACTATCCCACTC  
 CCTGTGATATCCTGTGGATGGAGCCAGCAGAGCGACCTAACGGGGCCAGACTGTCCAGAAGCCAGG  
 ACTGCAAGAGGCCCTCCAGCTACGACCCACTAGCCCTCTGTGAGCTACCTGGACTCTTTGATTGTGAA  
 ATGCTAGACGCTGTGGATCCACAACACAACGGGTATGTCCTGGTGAAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGAT AAGGTTTAA

**Protein Sequence:** >RC221327 representing NM\_015191  
 Red=Cloning site Green=Tags(s)

MVMADGPRHLQRGPVVRVGFYDIEGTLGKGNFAVVKLGRHRITKTEVAIKIIDKSQLDAPVLEKIYREVQI  
 MKMLDHPHIKLYQVMTKSMLYLVTEYAKNGEIFDYLANHGRLNESEARRKFWQILSAVDYCHGRKIVH  
 RDLKAENLLLDNNMNKIIADFGFNGFFKSGELLATWCGSPPYAAPEVFEGQQYEGPQLDIWSMGVLYVYL  
 VCGALPFDGPTLPILRQRVLEGRFRIPYFMSEDCEHLIRRMLVLDPSKRLTIAQIKEHKWMLIEVPVQRP  
 VLYPQEQENEPSIGEFNEQVLRMLMHSGLIDQOKTIESLQNKSYNHFAAIYFLLVERLKSHRSSFPVEQRL  
 DGRQRRPSTIAEQTVAKAQTVGLPVTMHSNMRLLRSALLPQASNVEAFSFPASGCQAEAAFMEEECVDT  
 PKVNGCLLDPVPPVLRKGCQSLPSNMMETSIDEGLETEGEAEEDPAHAFAEFQSTRSGQRRHTLSEVTN  
 QLVVMPGAGKIFSMNDSPLSDVDSEYDMGVSQRDLNLFLEDNPSLKDIMLANQSPRMTSPFISLRPTNP  
 AMQALSSQKREVHNRSPVSFREGRRASDTSLTQGIVAFRQHLQNLARTKGILELNKVQLLYEQIGPEADP  
 NLAPAAPQLQDLASSCPQEEVSQQQESVSTLPASVHPQLSPRQSLETQYLQHLRQKPSLLSKAQNTCQLY  
 CKEPPRSLEQQLQEHRLQKRLFLQKQSQLQAYFNQMQUIAESSYPQPSQQLPLRQETPPPQQAPPFSL  
 TQPLSPVLEPSSEMQMYSFPLSQYQEMQLQPLPSTSGPRAAPPLPTQLQQQPPPPPPPPPPRQGAAPA  
 PLQFSYQTCELPSAASPAPDYPTPCQYPVDGAQQSDLTGPDCPRSPGLQEAPSSYDPLALSELPGLFDCE  
 MLDAVDPQHNGYVLVN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6205\\_b06.zip](https://cdn.origene.com/chromatograms/mk6205_b06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



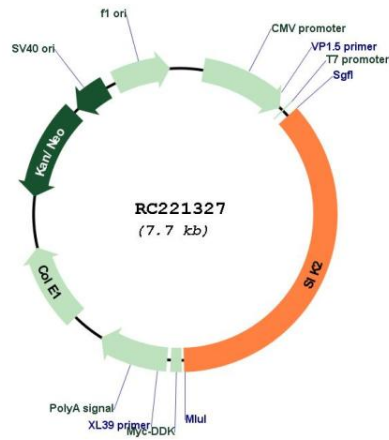
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_015191

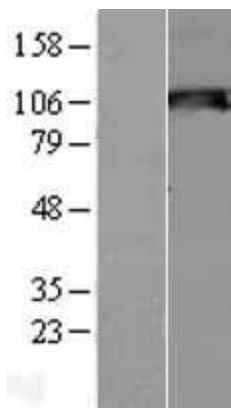
**ORF Size:** 2778 bp

<b>OTI Disclaimer:</b>	<p>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:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_015191.3</a>
<b>RefSeq Size:</b>	5694 bp
<b>RefSeq ORF:</b>	2781 bp
<b>Locus ID:</b>	23235
<b>UniProt ID:</b>	<a href="#">Q9H0K1</a>
<b>Cytogenetics:</b>	11q23.1
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>MW:</b>	103.7 kDa
<b>Gene Summary:</b>	Phosphorylates 'Ser-794' of IRS1 in insulin-stimulated adipocytes, potentially modulating the efficiency of insulin signal transduction. Inhibits CREB activity by phosphorylating and repressing TORCs, the CREB-specific coactivators.[UniProtKB/Swiss-Prot Function]

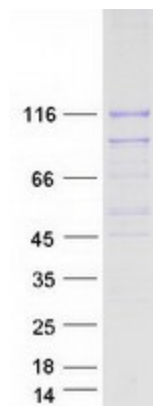
Product images:



Circular map for RC221327



Western blot validation of overexpression lysate (Cat# [LY402414]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221327 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SIK2 protein (Cat# [TP321327]). The protein was produced from HEK293T cells transfected with SIK2 cDNA clone (Cat# RC221327) using MegaTran 2.0 (Cat# [TT210002]).