

## Product datasheet for **MG218168**

### **Sik2 (NM\_178710) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Sik2 (NM_178710) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sik2
Synonyms:	G630080D20Rik; Snf1lk2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG218168 representing NM\_178710  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTCATGGCGGATGGCCCGAGGCACTTGCAGCGCGGGCCAGTCCGGGTGGGGTCTACGACATCGAGG  
 GCACGCTGGGCAAGGGCAACTTTGCCGTGGTGAAGCTGGGGCGGCACCGATCACCAAGACGGAGGTGGC  
 TATAAAAATAATAGACAAGTACAGCTGGATGCAGTAAACCTTGAGAAAATCTACCGAGAAGTACAGATA  
 ATGAAAATGCTCGACCATCCTCACATCATTAACTGTATCAGGTAATGGAGACAAAAGTATGTTGTACC  
 TTGTGACAGAATATGCCAAAAATGGAGAAATTTTGGATTATCTTGCTAATCATGGCCGATTAATGAATC  
 TGAAGCCAGGAGAAAATCTGGCAAATCTGTCTGCTGTTGATTATTGCCATGGCCGGAAGGTAGTGCAC  
 AGAGACCTGAAGGCTGAAAATCTCTGTGGATAACAACATGAATATCAAAATAGCAGATTTCCGGCTTTG  
 GAAATTTCTTTAAACTGGTGAAGTCTGGCAACATGGTGTGGCAGCCCCCTTATGCAGCCCCAGAAGT  
 CTTTGAAGGGCAGCAGTATGAAGGACCACAGCTGGATATATGGAGCATGGGAGTTGTTCTTTATGCCTT  
 GTCTGTGGAGCTTACCTTTTGTATGGACCAACTCTCCCTATTTTGAAGCAGAGGGTTTTAGAAGGAAGAT  
 TCCGGATTCTTATTTTATGTCAGAAGATTGTGAACACCTCATTAGAAGGATGTTGGTCTAGATCCTTC  
 CAAACGGCTAAGCATAGCTCAAATCAAGGAGCACAAAGTGGATGCTCATAGAGGTTCTGTACAGAGGCT  
 ATTCTCTACCCACAAGAACAGGAAAACGAGCCGTCATTGGAGAAATTTAATGAGCAGGTTCTTCGACTGA  
 TGCACAGCCTTGGGATTGATCAGCAGAAGACTGTTGAGTCTTTGCAAAAACAAGAGCTATAATCACTTTGC  
 TGCCATTTATTTCTTGTGGTGGAACTGCTAAAATCACATAGGAGCAGTTTTCTGTGGAGCAGAGACTT  
 GATGGCCGCCAGCGTCGGCTAGCACCATTGCTGAACAAACAGTTGCCAAGGCACAACTGTGGGCTGC  
 CAGTGCCTTGCATCCACCGAACGTGAGACTGATGCGATCTACCCTCTCCACAGGCATCCAATGTGGA  
 GGCTTTTTCATTTCCAACATCCAGCTGTCAAGCAGAAGCTGCCTTTATGGAGGAAGAGTGTGTCGACACT  
 CCAAAGGTGAATGGCTGCCTGCTTGACCCTGTGCCCTGTCTGTTGAGGAAGGATGCCAGTCACTGC  
 CCAGCAGTATGATGGAGACCTCCATTGATGAAGGCTTGGAGACAGAAGGAGAGGCTGAGGAAGACCCAG  
 TCAGGCCCTTGAAGCTTTCAGGCCACACGCAAGTGGCAGCGACGGCACACTCTGTGAGAAGTACTAAC  
 CAATTGGTTGTGATGCCCGGGCAGGAAAATGTTCTCCATGAGTGATAACCCCTCCCTTGAAGGAGTGG  
 ACTCTGAGTATGATATGGGGTCTGCCAGAGGGACCTGAAGTTTCTGGAAGACAGCCCTTCTTGAAGGA  
 CATCATGTTAGCCAATCAGCCGTCACCCCGCATGACATCTCTTTCATAAGCCTCAGACCTGCCAACCCA  
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 GCAGAGCATCAGATACGTCCTTACACAAGGAATTGTAGCATTTAGACAACATCTTCAGAATCTTGCTAG  
 AACCAAAGGAATTCTGGAGTTGAACAAAGTACAATTGCTGTATGAACAAATGGGATCAAACGCAGACCT  
 ACCTTAACATCAACTGCTCCTCAGCTCCAAGACCTTTCGAGCAGTTGCCCTCAGGAGGAAATCTCCAGC  
 AGCAGGAAAGTGTCTCCAGCCTGTCTGCCAGCATGCACCTCAGCTCTCACACAGCAAAGCTTGGAAAC  
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 TGTAAGAGCCACCTCGGAGCCTGGAACAGCAGCTACAGGAGCATAGGCTCCAACAGAAGCGACTTTCC  
 TCCAGAAGCAGTCTCAGCTGCAAGCATATTTAATCAGATGCAGATAGCAGAGAGCTCCTACCCTGGACC  
 AAGTCAGCAGCTGGCTCTTCCCCACAGGAGACTCCACTGACATCCAGCAGCCCCATCATTAGCCTG  
 ACCCAGGCCCTGAGTCTGTCTCGAGCCCTTCTGAGCAGATGCAATTTAGCTTTTCTCAGCCAAT  
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 ACCTCCTTACAGTTCTCCTATCAGACTTGTGAGCTGCCAAGCACCCTTCTTGTACCAAATATCCTG  
 CTTCTGTCACTATCCTGTGGATGGAGCCAGCAGCAACCTCACAGGGGCGGACTGTCCAGGAGCTC  
 AGGACTTCAGGACACCGCATCTAGCTATGACCCACTGGCCCTCTCTGAGCTCCCTGGACTCTTTGATTGT  
 GAAATGGTAGAAGCTGTGGATCCACAACACAATGGGGTGTGAGCTGCTTAGCCCCGGAGACC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG218168 representing NM\_178710  
 Red=Cloning site Green=Tags(s)

MVMADGPRHLQRGPPVRVGFYDIEGLGKGNFAVVKLGRHRITKTEVAIKIIDKSQLDVAVNLEKIYREVQI  
 MKMLDHPHIKLYQVMTKSMLYLVTEYAKNGEIFDYLANHGRLENESEARRKFWQILSAVDYCHGRKVVH  
 RDLKAENLLLDNNMNKIIADFGFNFVKTEGELLATWCGSPPYAAPEVFEGQQYEGPQLDIWSMGVLYVL  
 VCGALPFDGPTLPILRQRVLEGRFRIPYFMSDECEHLIRRMLVLDPSKRLSIAQIKEHKWMLIEVPVQRP  
 ILYPQEQENEPSIGEFNEQVLRMLMHSGLIDQKTVESLQNKSYNHFAAIYFLLVERLKSHRSSFPVEQRL  
 DGRQRRPSTIAEQTVAKAQTVGLPVTLHPPNVRLMRSTLLPQASNVEAFSFTSSCQAEAAFMEEECVDT  
 PKVNGCLLDPVPPVLRKGCQSLPSSMMETSIDEGLETEGEAEEDPSQAFEAFQATRSQGRRHTLSEVTN  
 QLVVMPGAGKMFMSDNPSLESVDSEYDMGSAQRDLNLFEDSPSLKDIMLANQSPRMTSPFISLRPANP  
 AMQALSSQKREAHNRSPVSFREGRRASDTSLTQGI VAFRQHLQNLARTKGILELNKVQLLYEQMGSNADP  
 TLTSTAPQLQDLSSSCPQEEISQQQESVSSLASMHQPQLSPQQSLETQYLQHRLQKPNLLPKAQSPCPVY  
 CKEPFRSLEQQLQEHRLQKRLFLQKQSQLQAYFNQMQUIAESSYPGPSQQLALPHQETPLTSQQPPSFL  
 TQALSPVLEPSSEMQMFSSFLSQYPEMLQPLPSTPGPQAPPPLPSQLQQHQPPPPPPPPPPPPQPGAAP  
 TSLQFSYQTCELPSTTSSVPNYPASCHYPVDGAQQSNLTGADCPRSSGLQDTASSYDPLALSELPLGDFC  
 EMVEAVDPQHNGVVSLARET

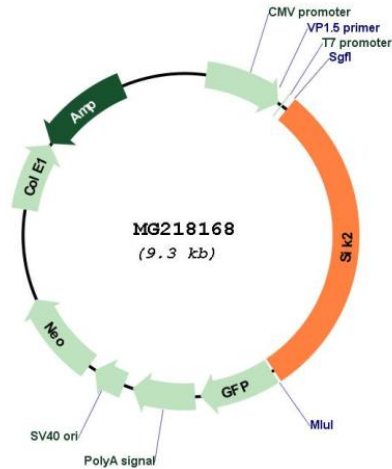
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_178710

**ORF Size:** 2793 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:**

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\\_178710.3](#), [NP\\_848825.2](#)

**RefSeq Size:** 3561 bp

**RefSeq ORF:** 2796 bp

**Locus ID:** 235344

**UniProt ID:** [Q8CFH6](#)

**Cytogenetics:** 9 A5.3

**Gene Summary:**

Phosphorylates 'Ser-789' of IRS1 in insulin-stimulated adipocytes, potentially modulating the efficiency of insulin signal transduction. Inhibits CREB activity by phosphorylating and inhibiting activity of TORCs, the CREB-specific coactivators, like CRTC2/TORC2 and CRTC3/TORC3 in response to cAMP signaling (PubMed:29211348).[UniProtKB/Swiss-Prot Function]