

Product datasheet for **RC224102**

STIM2 (NM_020860) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	STIM2 (NM_020860) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	STIM2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>RC224102 representing NM_020860
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAACGCAGCCGGGATCAGAGCTCCGGAGGCCGGTCCGATGGGACCAGGCTGGCGCCGGCGGGA
 GCCCGTGTCTGAGGCGGGGGCGGCCGGAGGAGTCGCCGGCGCGGTGGTGGCCCTCGCGGAGCCGG
 CGAGCTGCAGGCGGGCGGGCGCGCTGCGCTTTCACCCGGCTTCTCCTCGGCGCCTTCATCCCGCCTCG
 ACTCCTGGCCAGCGTGGGGCTGGCTGTGCGGCGGCGCGCTGGGCTGCGTTGCTGGTCTCGGCTGC
 TGGTAGCCGAGCGGGACGGATGCGAGCTTGTGCCCGGCACCTCCGCGGGCGGGCGGACTGGCTC
 TGCCGCAACTGCCGCTCCTCTCCCGCCGGCGGGCGGATAGCCCGGCGCTCATGACAGATCCCTGC
 ATGTCAGTGTCCACCATGCTTACAGAAGAAGACAGATTTAGTCTGGAAGCTTCAACAATACATA
 AACAAATGGATGATGACAAAGATGGTGAATTGAAGTAGAGGAAAGTATGAATTCATCAGAGAAGAT
 GAAATATAAAGATGCTACTAATAAACACAGCCATCTGCACAGAGAAGATAAACATATAACGATTGAGGAT
 TTATGAAAACGATGAAAACATCAGAAGTTCATAATTGGACCCTTGAAGCACTCTTCAGTGGTTGATAG
 AGTTTGTGAACACCCCAATATGAGAAGAATTTAGAGACAACAATGTCAAAGGAACGACACTTCCAG
 GATAGCAGTGCACGAACCTTCATTTATGATCTCCAGTTGAAAATCAGTGACCGGAGTCACAGACAAAA
 CTTCAGCTCAAGGCATTGGATGTGGTTTTGTTGGACCTAACACGCCACCTCATAACTGGATGAAA
 ATTTTATCCTCACAGTTTCTATAGTAATTGGTGTGGAGGCTGTGGTTTGTATACGCAGAATAAGAC
 ATCAAAAGAACATGTTGCAAAAATGATGAAAGATTTAGAGAGCTTACAACTGCAGAGCAAAAGTCTAATG
 GACTTACAAGAGAGGCTTGAAGGACAGGAAAGAAACAGAAATGTTGCTGTAGAAAAGCAAAATTTAG
 AGCGCAAAATGATGGATGAAATCAATTAATGCAAGGAGGAGGCTTGTGCGCTGAGAGCACTAAGGAGGG
 AGCTGAAATGTGAATTGAGTAGACGTGAGTATGCAGAACAGGAATTGGAACAGGTTCCGATGGCTCTGAAA
 AAGGCCGAAAAAGAATTTGAACTGAGAAGCAGTTGGTCTGTTCCAGATGCACTTCAGAAATGGCTTCAGT
 TAACACATGAAGTAGAAGTGCAATACTACAATATTAAGACAAAACGCTGAAATGCAGTAGCTATTGC
 TAAAGTAGAGGCAGAAAAAATTAAGAAAGAGAGAACAGTCTTTGGGACTCTGCACGTTGCACACAGC
 TCCTCCCTAGATGAGGTAGACCACAAAATCTGGAAGCAAGAAAGCTCTCTGAGTTGACAACTTGT
 TACGAGAACGACTTTTTCGCTGGCAACAATGAGAAGATCTGTGGCTTTCAGATAGCCATAACTCAGG
 ACTCCCGCCTGACCTTCCCTTTATCTGATCACAGCTGGTGGTGTGCCAGAGTCTCCATTCCA
 CCCTATCCAATTGCTGGAGGAGTTGATGACTTAGATGAAGACACACCCCAATAGTGTACAATTTCCCG
 GGACCATGGCTAAACCTCCTGGATCATTAGCCAGAAGCAGCAGCCTGTGCCGTTACGCGCCAGCATTGT
 GCCGCTCTCGCCTCAGCCTCAGCGAGCTCAGCTTGTCCACACGCCCCACCCGTCACACCTCGGCAC
 CCTCACCACCCGCAACACACACCACACTCCTTGCTTCCCTGATCCAGATATCCTCTCAGTGTCAAGTT
 GCCCTGCGCTTTATCGAAATGAAGAGGAGGAAGAGGCCATTTACTTCTCTGCTGAAAAGCAATGGGAAGT
 GCCAGACACAGCTTCAGAATGTGACTCCTTAAATTTCTCCATTGGAAGGAAACAGTCTCCTCCTTAAGC
 CTCGAGATATACCAACATTATCTCCGCAAAGATATCAAGAGATGAGGTGTCCCTAGAGGATTCCTCC
 GAGGGGATTCGCTGTAAGTGTGGATGTGTCTTGGGTTCTCCGACTGTGTAGGTCTGACAGAACTAA
 GAGTATGATCTTCAGTCTGCAAGCAAAGTGTACAATGGCATTTTGAGAAATCCTGTAGCATGAACCA
 CTTTCCAGTGGCATCCCGGTGCCTAAACCTCGCCACACATCATGTTCTCAGCTGGCAACGACAGTAAAC
 CAGTTCAGGAAGCCCAAGTGTGCCAGAATAAGCAGCATCCACATGACCTTTGCATAATGGAGAGAA
 AAGCAAAAAGCCATCAAAAATCAAAAGCCTTTTTAAGAAGAAATCTAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC224102 representing NM_020860
Red=Cloning site Green=Tags(s)

MNAAGIRAPEAAGADGTRLAPGGSPCLRRRGRPEESPAAVVAPRGAGELQAAGAPLRFHPASPRRLHPAS
TPGPAWGWLRRRRWAALLVLGLLVAGAADGCELVPRHLRGRATGSAATAASSPAAAAGDSPALMTDPC
MSLSPPCFTEEDRFSEALQTIHKQMDDDKGGIEVEESDEFIREDMKYKDATNKHSHLHREDKHITIED
LWKRWKTSEVHNWTLLEDTLQWLEFVELPQYKFNFRDNNVKGTTLPRIAVHEPSFMISQLKISDRSHRQK
LQLKALDVVLFGLPTRPPHNWMDKDFILTVSIVIGVGGCWFAYTQNKTSKEHVAKMMKDLESQTAEQSLM
DLQERLEKAQEEENRNVAVEKQNLERKMMDEINYAKEEACRLRELREGAECELSRRQYAEQLEQVRMALK
KAEKEFELRSSWSVPDALQKWLQLTHEVEVQYYNIKRQNAEMQLAIKDEAEKIKKRSTVFGTLHVAHS
SSLDEVDHKILEAKKALSELTTCLRERLFRWQQIEKICGFQIAHNSGLPSLTSSLYSDHSWVMPRVSIP
PYPIAGGVDDLEDTPPIVSQFPGTMAKPPGSLARSSSLCRSRRSIVPSSPQPQRAQLAPHAPHSHPRH
PHHPQHTPHSLSPDPDILSVSSCPALYRNEEEEEAIYFSAEKQWEVPDTASECDSLNSSIGRKQSPPLS
LEIYQTLSPRKISRDEVSLEDSSRGDSPVTVDVSWGSPDCVGLTETKSMIFSPASKVYNGILEKSCSMNQ
LSSGIPVPKPRHTSCSSAGNSKPVQEAPSVARISSIPHDLCHNGEKSKKPSKIKSLFKKSK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2637_c09.zip

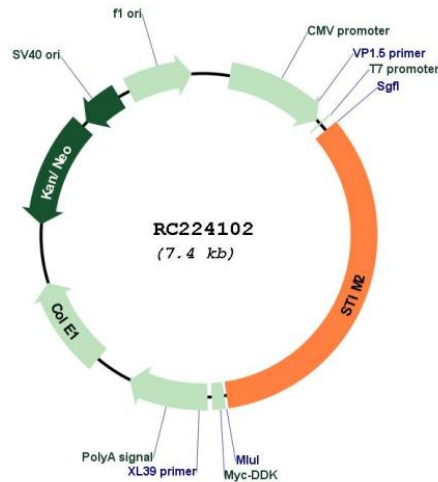
Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_020860

ORF Size: 2499 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_020860.2](#)

RefSeq Size: 5156 bp

RefSeq ORF: 2241 bp

Locus ID: 57620

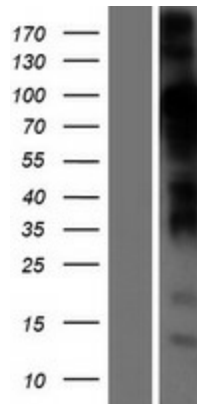
UniProt ID: [Q9P246](#)

Cytogenetics: 4p15.2

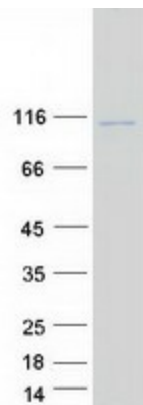
MW: 82.6 kDa

Gene Summary: This gene is a member of the stromal interaction molecule (STIM) family and likely arose, along with related family member STIM1, from a common ancestral gene. The encoded protein functions to regulate calcium concentrations in the cytosol and endoplasmic reticulum, and is involved in the activation of plasma membrane Orai Ca(2+) entry channels. This gene initiates translation from a non-AUG (UUG) start site. A signal peptide is cleaved from the resulting protein. Multiple transcript variants result from alternative splicing. [provided by RefSeq, Dec 2009]

Product images:



Western blot validation of overexpression lysate (Cat# [LY402808]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224102 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified STIM2 protein (Cat# [TP324102]). The protein was produced from HEK293T cells transfected with STIM2 cDNA clone (Cat# RC224102) using MegaTran 2.0 (Cat# [TT210002]).