

Product datasheet for **MG210034**

Stim1 (BC021644) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Stim1 (BC021644) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Stim1
Synonyms:	SIM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG210034 representing BC021644
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATGTGTGCGCCCGTCTTCCCTGTGGCTTCTTTGGGGCTCCTTCTGCATCAGGGCCAGAGTCTCA
 GCCATAGTCACAGTGAAAAGAATACAGGAGCTAGCTCCGGGGCGACTTCTGAAGAGTCTACCGAAGCAGA
 GTTTTGCCGAATTGACAAGCCCTGTGCCACAGTGAGGATGAGAAGCTCAGCTTTGAGGCCGTCCGAAAC
 ATCCATAAGCTGATGGATGACGATGCCAATGGTGTGGATGTGGAAGAAAGTATGAGTTCCTAAGGG
 AAGACCTCAATTACCATGACCAACAGTGAAACATAGCACCTTCCATGGTGGGATAAGCTTATCAGCGT
 GGAGGACCTGTGGAAGCGTGAAATCATCAGAAGTGTACAAGTGGACTGTGGATGAGGTGATACAGTGG
 CTCATTACGTATGTGGAGCTGCCACAGTATGAGGAGACCTCCGGAAGTGCAGCTTACTGGCCACGCCA
 TGCCAAGGCTAGCAGTAACCAACACCACCATGACAGGGACTGTACTGAAGATGACAGATCGGAGCCACAG
 GCAGAAGCTGCAGCTGAAGGCCCTGGACACAGTGTGTTGGGCCTCCTCTTGGACTCGGCATAATCAC
 CTGAAGGACTTCATGCTGGTGGTGTCTATCGTTATTGGTGTGGTGGCTGCTGGTTTGCCTATATCCAGA
 ACCGTTACTCTAAGGAGCACATGAAGAAAATGATGAAGGATCTGGAAGGGTTACACCGGGCTGAGCAGAG
 TCTGCATGACCTTCAAGAAAGGCTGCACAAGGCCAGGAGGAGCACCGAAGTGTGGAAGTAGAGAAAGTC
 CACCTGGAGAAGAAGCTGCGAGATGAGATCAACCTTGCCAAGCAGGAAGCTCAGCGGCTGAAGGAGCTGA
 GGGAGGGTACTGAGAATGAGAGGAGCCGTCAAAAATATGCTGAGGAAGAGCTGGAGCAGGTTCCGGAGGC
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 TCCTCAGATGGGCGTGTGCAGATGAAGCTCTCAATGCCATGCCTTCCAATGGCAGCCATCGGCTGATT
 GAGGGGTCCATCCAGGATCTCTGGTGGAGAACTGCCTGACAGCCCTGCTCTGGCCAAGAAGACATTTA
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 CTCCCCACTTTTGGATTCTTCCATTCTTTAGCCCCAGTTCCCCAGACCCAGACACACCATCTCCAGTT
 GGGGACAACCGAGCTCTGCAGGGTAGCCGAAACACACGAATCCCCACTTGGCTGGCAAGAAGGCAATGG
 CTGAGGAGGATAATGGTTCCATTGGTGGAGGAGACAGACTCCAGTCCAGGCAGGAAGAAGTTTCTCTCAA
 AATTTTAAAGAAGCCTCTTAAGAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG210034 representing BC021644
 Red=Cloning site Green=Tags(s)

MDVCARLALWLLWGLLLHQGQSLSHSHSEKNTGASSGATSEESTEAEFCRIDKPLCHSEDEKL SFEAVRN
 IHKLMDDDANGDVDVEESDEFREDLNYHDPTVKHSTFHGEDKLSVDELWKAWSSEVYNWTVDEVIQW
 LITYVELPQYEETFRKLQLTGHAMPRLAVTNTTMTGTVLKMTDRSHRQKLQKALDVLFGPPLLTRHNN
 LKDFMLVVSIVIGVGGCWFAYIQNRYSKHEMCKMMKDLEGLHRAEQSLHDLQERLHKAQEEHRTVEVEKV
 HLEKCLRDEINLAKQEAQRLKELREGTENERSRQKYAEEELQVREALRKAKEKELESWYAPEALQKW
 LQLTHEVEVQYNIKKQNAERQLLVAKEGAEKIKKRNTLFGTFHVAHSSSLDDVDHKILTAKQALSEVT
 AALRERLHRWQQIEILCGFQIVNPNPIHSLVAALNIDPSWMGSTRPNPAHFIMTDDVDDMDEEIVSPLSM
 QSPSLQSSVRQRLTEPQLGLGSQRDLTHSDSESSLHMSDRQRVAPKPPQMGRAADEALNAMPNGSHRLI
 EGVHPGSLVEKLPDSPALAKKTFMALNHGLDKAHSMLNPSVPPGGSPLLDSSHSLSPSSPDPDTPSPV
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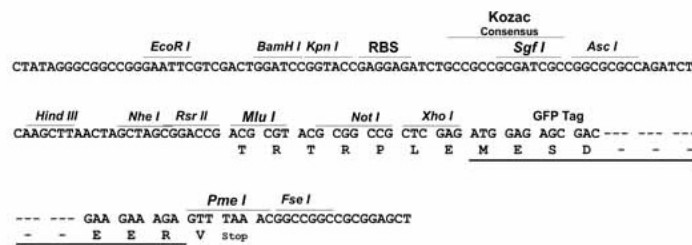
TRTRPLE - GFP Tag - V

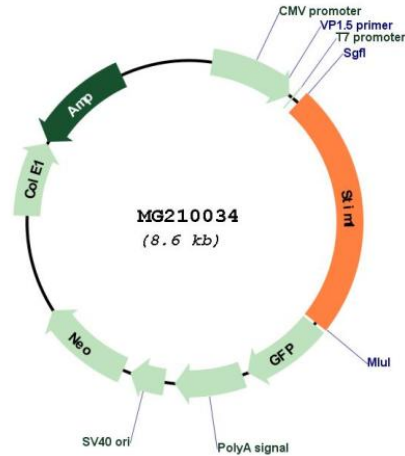
Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: BC021644

ORF Size: 2057 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: [BC021644](#), [AAH21644](#)

RefSeq Size: 3619 bp

RefSeq ORF: 2057 bp

Locus ID: 20866

Cytogenetics: 7 54.71 cM

Gene Summary: Plays a role in mediating store-operated Ca(2+) entry (SOCE), a Ca(2+) influx following depletion of intracellular Ca(2+) stores. Acts as Ca(2+) sensor in the endoplasmic reticulum via its EF-hand domain. Upon Ca(2+) depletion, translocates from the endoplasmic reticulum to the plasma membrane where it activates the Ca(2+) release-activated Ca(2+) (CRAC) channel subunit ORAI1. Involved in enamel formation. Activated following interaction with STIMATE, leading to promote STIM1 conformational switch.[UniProtKB/Swiss-Prot Function]