

## Product datasheet for **RG205678**

### Stromal interaction molecule 1 (STIM1) (NM\_003156) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Stromal interaction molecule 1 (STIM1) (NM_003156) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Stromal interaction molecule 1
Synonyms:	D11S4896E; GOK; IMD10; STRMK; TAM; TAM1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG205678 representing NM\_003156  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGATGTATGCGTCCGTCTTGCCCTGTGGCTCCTCTGGGACTCCTCCTGCACCAGGGCCAGAGCCTCA  
GCCATAGTCACAGTGAGAAGGCGACAGGAACCAGCTCGGGGGCCAACTCTGAGGAGTCCACTGCAGCAGA  
GTTTTGCCGAATTGACAAGCCCTGTGTACAGTGAGGATGAGAACTCAGCTTCGAGGCAGTCCGTAAAC  
ATCCACAACTGATGGACGATGATGCCAATGGTGTGTGGATGTGGAAGAAAGTATGAGTTCCTGAGGG  
AAGACCTCAATTACCATGACCCAACAGTGAAACACAGCACCTTCCATGGTGGGATAAGCTCATCAGCGT  
GGAGGACCTGTGGAAGGCATGGAAGTATCAGAAGTATACAATTGGACCGTGGATGAGGTGGTACAGTGG  
CTGATCACATATGTGGAGCTGCCTCAGTATGAGGAGACCTTCCGGAAGCTGCAGCTCAGTGGCCATGCCA  
TGCCAAGGCTGGCTGTCACCAACACCACCATGACAGGGACTGTGCTGAAGATGACAGACCGGAGTATCG  
GCAGAAGCTGCAGCTGAAGGCTCTGGATACAGTGTCTTTGGGCCTCCTCTTTGACTCGCCATAATCAC  
CTCAAGGACTTCATGCTGGTGGTGTCTATCGTTATTGGTGTGGCGGCTGCTGGTTTGCCTATATCCAGA  
ACCGTTACTCCAAGGAGCACATGAAGAAGATGATGAAGGACTTGGAGGGTTACACCGAGCTGAGCAGAG  
TCTGCATGACCTTCAAGAAAGGCTGCACAAGGCCAGGAGGAGCACCGCACAGTGGAGGTGGAGAAGGTC  
CATCTGGAAGAAGCTGCGCGATGAGATCAACCTTGCTAAGCAGGAAGCCAGCGGCTGAAGGAGCTGC  
GGGAGGGTACTGAGAATGAGCGGAGCCGCAAAAATATGCTGAGGAGGAGTTGGAGCAGGTTCCGGAGGC  
CTTGAGGAAAGCAGAGAAGGAGCTAGAATCTCACAGCTCATGGTATGCTCCAGAGGCCCTCAGAAGTGG  
CTGCAGCTGACACATGAGGTGGAGGTGCAATATTACAACATCAAGAAGCAAAATGCTGAGAAGCAGCTGC  
TGGTGGCCAAGGAGGGGGCTGAGAAGTAAAAAGAAGAAACACACTCTTTGGCACCTTCCACGTGGC  
CCACAGCTCTCCCTGGATGATGTAGATCATAAAATTCTAACAGCTAAGCAAGCACTGAGCGAGGTGACA  
GCAGCATTGCGGGAGCGCTGCACCGCTGGCAACAGATCGAGATCCTCTGTGGCTTCCAGATTGTCAACA  
ACCCTGGCATCCACTCACTGGTGGCTGCCTCAACATAGACCCAGCTGGATGGGAGTACACGCCCCAA  
CCCTGCTCACTTCATCATGACTGACGACGTGGATGACATGGATGAGGAGATTGTGTCTCCCTTGTCCATG  
CAGTCCCTAGCCTGCAGAGCAGTGTTCGGCAGCGCTGACGGAGCCACAGCATGGCCTGGGATCTCAGA  
GGGATTTGACCCATTCCGATTCCGAGTCTCCCTCCACATGAGTGACCGCCAGCGTGTGGCCCCAAACC  
TCCTCAGATGAGCCGTGCTGCAGACGAGGCTCTCAATGCCATGACTTCCAATGGCAGCCACCGGCTGATC  
GAGGGGTCCACCCAGGCTCTCTGGTGGAGAACTGCCTGACAGCCCTGCCCTGGCCAAGAAGGCATTAC  
TGGCGCTGAACCATGGGCTGGACAAGGCCACAGCCTGATGGAGCTGAGCCCTCAGCCCCACCTGGTGG  
CTCTCCACATTTGGATTCTCCCGTTCTCACAGCCCCAGCTCCCCAGACCCAGACACACCATCTCCAGTT  
GGGGACAGCCGAGCCCTGCAAGCCAGCCGAAACACACGCATTCCCCACCTGGCTGGCAAGAAGGCTGTGG  
CTGAGGAGGATAATGGCTCTATTGGCGAGGAAACAGACTCCAGCCAGGCCGGAAGAAGTTTCCCTCAA  
AATCTTTAAGAAGCCTCTTAAGAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG205678 representing NM\_003156  
 Red=Cloning site Green=Tags(s)

MDVVCVRLALWLLWGLLLHQGQSLSHSHSEKATGTSSGANSEESTAAEFCRIDKPLCHSEDEKL SFEAVRN  
 IHKLMDDDANGDVDEESDEFREDLNYHDPTVKHSTFHGEDKLSVDELWKAWKSEVYNWTVDEVVQW  
 LITYVELPQYEETFRKLQLSGHAMPRLAVTNTTMTGTVLKMTDRSHRQKLQKALDVLFGPPLLTRHNN  
 LKDFMLVVSIVIGVGGCWFAYIQNRYRSKEHMKMMKDLEGLHRAEQSLHDLQERLHKAQEEHRTVEVEKV  
 HLEKCLRDEINLAKQEAQRLKELREGTENERSRQKYAEEELQVREALRKAKEKELESHSSWYAPEALQKW  
 LQLTHEVEVQYNIKKQNAEKQLLVAKEGAEKIKKRNTLFGTFHVAHSSSLDDVDHKILTAKQALSEVT  
 AALRERLHRWQIEILCGFQIVNPNPIHSLVAALNIDPSWMGSTRPNPAHFIMTDDVDDMDEEIVSPLSM  
 QSPSLQSSVRQRLTEPQHGLGSQRDLTHSDSESSLHMSDRQRVAPKPPQMSRAADEALNAMTSNGSHRLI  
 EGVHPGSLVEKLPDSPALAKKALLALNHGLDKAHSMLMELSPSAPPGGSPHL DSSRSHPSSPDPDTPSPV  
 GDSRALQASRNTRIPHLAGKKA VAEEDNGSIGEETDSSPGRKKFPLKIFKKPLKK

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_003156

**ORF Size:** 2055 bp

**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 [custsupport@origene.com](mailto:custsupport@origene.com) 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. [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\\_003156.4](#)

**RefSeq Size:** 4039 bp

**RefSeq ORF:** 2058 bp

**Locus ID:** 6786

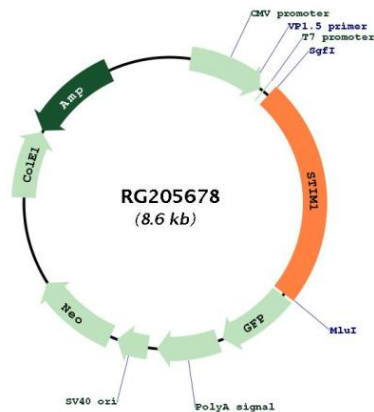
**UniProt ID:** [Q13586](#)

**Cytogenetics:** 11p15.4

**Protein Families:** Transmembrane

**Gene Summary:**

This gene encodes a type 1 transmembrane protein that mediates Ca<sup>2+</sup> influx after depletion of intracellular Ca<sup>2+</sup> stores by gating of store-operated Ca<sup>2+</sup> influx channels (SOCs). It is one of several genes located in the imprinted gene domain of 11p15.5, an important tumor-suppressor gene region. Alterations in this region have been associated with the Beckwith-Wiedemann syndrome, Wilms tumor, rhabdomyosarcoma, adrenocortical carcinoma, and lung, ovarian, and breast cancer. This gene may play a role in malignancies and disease that involve this region, as well as early hematopoiesis, by mediating attachment to stromal cells. Mutations in this gene are associated with fatal classic Kaposi sarcoma, immunodeficiency due to defects in store-operated calcium entry (SOCE) in fibroblasts, ectodermal dysplasia and tubular aggregate myopathy. This gene is oriented in a head-to-tail configuration with the ribonucleotide reductase 1 gene (RRM1), with the 3' end of this gene situated 1.6 kb from the 5' end of the RRM1 gene. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, May 2013]

**Product images:**

Circular map for RG205678