

## Product datasheet for **RG238803**

### Stromal interaction molecule 1 (STIM1) (NM\_001277962) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Stromal interaction molecule 1 (STIM1) (NM_001277962) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	STIM1
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:**

>RG238803 representing NM\_001277962.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGGATGTATGCGTCCGTCTTGCCCTGTGGCTCCTCTGGGGACTCCTCCTGCACCAGGGCCAGAGCCTC
AGCCATAGTCACAGTGAGAAGGCGACAGGAACCACTCGGGGCCAACTCTGAGGAGTCCACTGCAGCA
GAGTTTTGCCGAATTGACAAGCCCTGTGTCACAGTGAGGATGAGAACTCAGCTTCGAGGCAGTCCGT
AACATCCACAACTGATGGACGATGATGCCAATGGTATGTGGATGTGGAAGAAAGTATGAGTTCCTG
AGGAAGACCTCAATTACCATGACCCAACAGTAAACACAGCACCTTCCATGGTGAAGATAAGCTCATC
AGCGTGGAGGACCTGTGGAAGGCATGGAAGTATCAGAAGTATACAATTGGACCGTGGATGAGGTGGTA
CAGTGGCTGATCAGATGTGGAGCTGCCTCAGTATGAGGAGACCTCCGGAAGCTGCAGCTCAGTGGC
CATGCCATGCCAAGGCTGGCTGTACCAACACCACCATGACAGGGACTGTGCTGAAGATGACAGACCGG
AGTCATCGGCAGAAGCTGCAGCTGAAGGCTCTGGATACAGTGCTCTTTGGGCTCCTCTCTTGACTCGC
CATAATCACCTCAAGGACTTCATGCTGGTGGTGTCTATCGTTATTGGTGTGGGCGCTGTGGTTTGCC
TATATCCAGAACCCTTACTCCAAGGAGCACATGAAGAAGATGATGAAGGACTTGGAGGGTTACACCGA
GCTGAGCAGAGTCTGCATGACCTTCAGGAAAGGCTGCACAAGGCCAGGAGGAGCACCGCACAGTGGAG
GTGGAGAAGTCCATCTGAAAAGAAGCTGCGCGATGAGATCAACCTTGCTAAGCAGGAAGCCAGCGG
CTGAAGGAGTGCAGGAGGACTGAGAATGAGCGGAGCCGCCAAAAATATGCTGAGGAGGAGTTGGAG
CAGGTTCCGGAGGCTTGGAGAAAGCAGAGAAGGAGCTAGAATCTCACAGCTCATGGTATGCTCCAGAG
GCCCTTCAGAAGTGGCTGCAGCTGACACATGAGGTGGAGTGAATATTACAACATCAAGAAGCAAAAT
GCTGAGAAGCAGCTGCTGGTGGCAAGGAGGGGCTGAGAAGATAAAAAAGAAGAAACACACTCTTT
GGCACCTCCACGTGCCACAGCTCTCCCTGGATGATGTAGATCATAAAATTAACAGCTAAGCAA
GCACTGAGCGAGGTGACAGCAGCATTGCCGGAGCGCTGCACCGCTGGCAACAGATCGAGATCCTCTGT
GGCTTCCAGATTGCAACAACCCTGGCATCCACTCACTGGTGGCTGCCCTCAACATAGACCCAGCTGG
ATGGGCAGTACACGCCCCAACCTGCTCACTTCATCATGACTGACGACGTGGATGACATGGATGAGGAG
ATTGTGTCTCCCTTGTCCATGCAGTCCCCTAGCCTGCAGAGCAGTGTTCGGCAGCGCCTGACGGAGCCA
CAGCATGGCCTGGGATCTCAGAGAGGATCATCTCTAAAGGCAACAGGCTCTCTAGTAAGGGATTGAC
CCATTCCGATTCCGAGTCTCCCTCCACATGAG
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTAAAC
```

**Protein Sequence:**

>Peptide sequence encoded by RG238803  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MDVCVRLALWLLWGLLLHQGQSLSHSHSEKATGTSSGANSEESTAAEFCRIDKPLCHSEDEKLSFEAVR
NIHKLMDDDANGDVVEESDEFLELDNYHDPTVKHSTFHGEDKLISVEDLWKAWKSSEVYNWTVDEVV
QWLITYVELPQYEETFRKLQLSGHAMPRLAVTNTMTGTVLKMTDRSHRQKLQLKALDTVLFPPLLTR
HNHLKDFMLVVSIVIGVGGWFAYIQNRYSKEHMKMMKDLLEGLHRAEQSLHDLQERLHKAQEEHRTVE
VEKVHLEKLRDEINLAKQEAQRLKELREGTENERSRQKYAEELQVREALRKAKELESHSSWYAPE
ALQKWLQLTHEVEVQYYNIKKQNAEKQLLVAKEGAEKIKKRNTLFGTFHVAHSSSLDDVDHKILTAKQ
ALSEVTAALRERLHRWQIEILCGFQIVNPNPIHSLVAALNIDPSWVGSTRPNPAHFIMTDDVDDMDEE
IVSPLSMQSPSLQSSVRQRLTEPQHGLGSQRGSSSKANRLSSKGFDPFRFGVLPPE
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:**

Sgfl-MluI



<b>ACCN:</b>	NM_001277962
<b>ORF Size:</b>	1620 bp
<b>OTI Disclaimer:</b>	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>
<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>RefSeq:</b>	<a href="#">NM_001277962.2</a>
<b>RefSeq Size:</b>	4099 bp
<b>RefSeq ORF:</b>	1623 bp
<b>Locus ID:</b>	6786
<b>UniProt ID:</b>	<a href="#">Q13586</a>
<b>Cytogenetics:</b>	11p15.4
<b>Protein Families:</b>	Transmembrane
<b>MW:</b>	62.6 kDa
<b>Gene Summary:</b>	<p>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]</p>