

## Product datasheet for **SC107178**

### TRIM56 (NM\_030961) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TRIM56 (NM_030961) Human Untagged Clone
Tag:	Tag Free
Symbol:	TRIM56
Synonyms:	RNF109
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL6</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC107178 sequence for NM\_030961 edited (data generated by NextGen Sequencing)

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ATGGTTTCCCACGGGTCCTCGCCCTCCCTCCTGGAGGCCCTGAGCAGCGACTTCCTGGCC
TGTA AATCTGCCTGGAGCAGCTGCGGGCACCAAGACTGCCCTGCCTGCATACCTAC
TGCCAAGACTGCCTGGCACAGCTGGCGGATGGCGGCCGCTCCGCTGCCCGAGTGCCGC
GAGACAGTGCCTGTGCCGCCGAGGGTGTGGCCTCCTTCAAGACCAACTTCTTCGTCAAT
GGGCTGCTGGACTGGTGAAGGCCGGGCTGTGGAGACCTGCGTGCCGGGAAGCCAGCC
TGTGCCCTGTGTCCCTGGTGGGTGGCACACAGCACCGGGGGCCGACCAGGCCCGGTGC
CTGGACTGTGCCGATGACTTGTGCCAGGCTGTGCCGACGGGACCGCTGCACCCGCCAG
ACCCACACCCACCGCTGGTGGACTGGTGGGCTACAGGGCCGGGTGGTATGATGAGGAG
GCCCGGGAGCGCAAGCGGCCAGTGTCCCAGCACCCCGGGGAGGCACTGCGCTTCCTG
TGCCAGCCTGCTCACAGTTGCTGTGCAGAGAGTGCCGCCTAGACCCACCTGGACCAC
CCCTGCCTGCCTCTGGCTGAAGCTGTGCGTGCCCGGAGGCCGGGCTGGAGGGACTGCTG
GCCGGTGTGGACAATAACTGGTGGAGCTGGAGGCAGCGGAGGGTGGAGAAGGAGGCCG
CTAGCCCGGCTGCCGGAGCAGGCCGCCCGGGTGGGACTCAGGTGGAGGAGCGGCTGAG
GGCGTCTCCGGGCCCTGCTGGCCAGAAGCAGGAGGTGCTGGGCAGCTACGAGCCAC
GTGGAGGCTGCCGAAGAAGCTGCTCGGGAGAGGCTGGCGGAGCTTGAGGGCCGGGAGCAG
GTGGCCAGGGCCGAGCCGCCTTCGCCCGCCGGTACTCAGCCTGGGGCAGAGGCCGAG
ATCCTCTCCCTGGAAGGGGCGATCGCACAGCGGCTCAGGCAGCTGCAGGGCTGCCCTGG
GCACCAGGCCCGGCCCTGCCTGTTCCACAGCTGGAGCTCCATCCTGGGCTCCTGGAC
AAGAACTGCCACCTTCTTCGGCTGTCTTTGAGGAGCAGCAGCCCAAGAGGATGGTGGG
AAAGACGGAGCTGGTACCCAGGGAGGTGAGGAGAGCCAGAGCCGGAGGGAGGATGAGCCG
AAGACTGAGAGACAGGGTGGAGTCCAGCCAGGCTGGAGATGGAGCCAGACCCAAAAA
GAGGAAAAAGCCAGACAACCCGAGAAGAGGGAGCCAGACCTTGAGGAGGACAGGGCC
CAGACACCCACAGGATGGAGGACCCAGCCACAGGGGTGGCAGACCAACAAGAAG
AAAAAGTTCAAAGGCAGGCTCAAGTCAATTTCCCGGGAGCCAGCCAGCCCTGGGGCCG
AATCTGGACGGCTCTGGCCTCCTCCAGACCCATCTTTTACTGCAGTTTCCACGCGG
ATGCTGGAGACAAGCGGTCCCCCGGATCACCAGGCTCTGTCCCTTCGGTCCCCGGGAG
ATCCTGGTGGCGGATGAGCAGAACCAGGCACTGAAACGCTTCTCCCTCAACGGCGACTAC
AAGGGCACCGTGCCGGTCCCTGAGGGCTGCTCCCTTGCAGCGTGCCCGCCCTGCAGAGC
GCGGTGGCCTTCTCCGCTAGCGCACGGCTATCTCATCAACCCCAACGGCGAAGTGCAG
TGGCGCAGGGCCCTGAGCCTCTCCAGGCCAGCCACGCGGTGGCGGCACTGCCTAGCGGG
GACCGCGTGGCTGTGAGCGTGGCGGGCCACGTGGAGGTGTACAATATGGAAGGCAGCCTG
GCCACCCGGTTTCTTCTGGAGGCAAGGCCAGCCGGGGCTGCGGGCGCTGGTGTTCCTG
ACCACCAGCCCCAGGGGCATTTCTGTTGGGTCGGACTGGCAGCAGAAATAGTGTGGTAATC
TGTGATGGGCTGGGCCAGGTGGTTGGGGAGTACAAGGGGCCAGGCTGCATGGCTGCCAG
CCGGGCTCCGTGTCTGTGGATAAGAAGGGCTACATCTTTCTGACCCTTCGAGAAGTCAAC
AAGGTGGTGTCTGGACCCGAAGGGTCCCTCCTTGGAGACTTCTGACAGCCTACCAC
GGCCTGGAAAAGCCCCGGTTACCACCATGGTGGATGGCAGGTACCTGGTGTCCCTC
AGTAACGGGACCATCCACATCTTTCGGGTCCGTTCTCCGGACAGTTAA

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Clone variation with respect to NM\_030961.1  
 912 g=>c;1045 c=>t;1236 c=>t

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_030961 unedited  
 TTTCCCCCGCCCGTTGNCGCAAAGGGCGGTAGGCGTGACGGTGGGAGGTCTATATAAGC  
 AGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTTGCAGCGGCCGCG  
 AATTCCGGCAGGAGCAAGATCCTACCCCAACTGGCAGGACCTAGGCATCTCTGCCCACTG  
 GGATCCCCGTCTGTGCTTACTGCCTGCTCCTCGCACCTGGCACCTATACAGCAGGA  
 CCCCAGTACCTGTGCACACAGGAGGGCTTCCACCATGTTTGCCACAAGGCCTGTGGACTG  
 GGGACACTGAGGATTCGATTATTAGCTAAGGCCAGGGACTCCTGGTCTTGTCAAGTCTCA  
 CAGGTCTGACCCAACAAGTAGCACTGACATTTTTACGTTTGCTGGATGTACACACGGAAG  
 TGGAGGAGGAGGAGAGAAGGAGGAGGGCAGCTCCTTAGCTCAAGAGCAAGTGGCCCAAG  
 GCCTCAGAAGACTAGAAGGAAGTTCCTGGCCATTGAGCATGGTTTCCCACGGGTCTCGC  
 CCTCCCTCTGGAGGCCCTGAGCAGCGACTTCTGGCCTGTAAAATCTGCCTGGAGCAGC  
 TGGCGGCACCCAAGACTGCCCTGCCTGCATACCTACTGCCAAGACTGCCTGGCACAGC  
 TGGCGGATGGCGGCCGCTCCGCTGCCCGAGTCCGCGAGACAGTGCCTGTGCCCGCCG  
 AGGGTGTGGCCTCTTCAAGACCAACTTCTTCGCAATGGGCTGTGGACCTGGTGANAG  
 CCCNNGCCTGTGGAGACCTGCGTGCNCGAAGCCAGCCTGTGCCCTGTGTCCCCTGGTGG  
 GTGGCACCAGCACCGGGGGCCCGCCACGCCNCTGCCTGNACTGTGCCGATGACTTGT  
 GCCANGCCTGTGCCGACNGGCACCGTTGCACCCGNCAGACCACACNCACCNGT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_030961 unedited  
 AGTAAAACCTTTTTTTTTTTTTTTTTTCGAAAGGGGTCTGGGAAGCAGTGGTGGCATCATAG  
 CTCCTGACAGACTCAAACCTCGGCTCAAGGGATCCTCCACCTCAGCCTCCTGAGTAG  
 CTACGTTGAAAGGCATATGCTACTACACGCAGCTAATTTTTAATCTTTTGTAGAGATGGG  
 GTCTCGCTATGTTGCCAGGCTGGTCTCAAACCTCGCCTCAAGCAATCCTCCTGCCAC  
 AGACTCCCAAAGTGCCGGGATTATAGGCATGAGCCACTGCGCCTGGCAGAGCCTGGTTTT  
 TTTTTAATACTTAATCTTAGCCAAAAGGCTGAGAAGCGATGGAGAATGTGGATTTTTGGA  
 CGTGAATTCTGTTGGGTTTGGTTTTCCAGTAGCCTATTCTCTTCGCAGCCTTTGAACCTA  
 ACACCTCTTTGGCCCCAGCTGCTGTCTGCACTTGACAGACCCTCCTGCAAGCTCACCTGT  
 ACTACCGCCGGGGGATGCCGTGATCAAGGAGCATCCTGCCTGTGGCTGGCAGAAGAGGCC  
 ATCACTGCCCCATTGAAATCTCAGGCCCTCCTGACTCTGTAGGACCCTGTGCCAGTCC  
 AAGGGGNGCCGGGGTCTCAGCTCTGTTCCACAGTGCACACGCTGACCCACCCTGGGCC  
 CTCTTTGGCCCCAAGACTCTCCCTCGGCTACTCTATCAGGAATGGTTTTGAAGAATGCAA  
 AGCAGGACAGGCTCACAACCTCAGAACTAACTATATAGCANCGCGGGGGGTGGCA  
 GCAGCCACCCACCAATAGCAGGAGGCAAGTAA

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_030961

**Insert Size:**

4100 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_030961.1](#), [NP\\_112223.1](#)

**RefSeq Size:** 3547 bp

**RefSeq ORF:** 2268 bp

**Locus ID:** 81844

**UniProt ID:** [Q9BRZ2](#)

**Cytogenetics:** 7q22.1

**Gene Summary:** E3 ubiquitin-protein ligase that plays a key role in innate antiviral immunity (PubMed:21289118). In response to pathogen- and host-derived double-stranded DNA (dsDNA), targets TMEM173/STING to 'Lys-63'-linked ubiquitination, thereby promoting its homodimerization, a step required for the production of type I interferon IFN-beta (By similarity). Independently of its E3 ubiquitin ligase activity, positive regulator of TLR3 signaling. Potentiates extracellular double stranded RNA (dsRNA)-induced expression of IFNB1 and interferon-stimulated genes ISG15, IFIT1/ISG56, CXCL10, OASL and CCL5/RANTES. Promotes establishment of an antiviral state by TLR3 ligand and TLR3-mediated chemokine induction following infection by hepatitis C virus (PubMed:22948160).[UniProtKB/Swiss-Prot Function]