

Product datasheet for **SC303574**

SIM2 (NM_005069) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SIM2 (NM_005069) Human Untagged Clone
Tag:	Tag Free
Symbol:	SIM2
Synonyms:	bHLHe15; HMC13F06; HMC29C01; SIM
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC303574 sequence for NM_005069 edited (data generated by NextGen Sequencing)

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ATGAAGGAGAAGTCCAAGAATGCGGCCAAGACCAGGAGGGAGAAGGAAAATGGCGAGTTTTACGAGCTTG
CCAAGCTGCTCCCGCTGCCGTGCGCCATCACTTCGCAGCTGGACAAAGCGTCCATCATCCGCTCACCAC
GAGCTACCTGAAGATGCGCGCCGTCTCCCGAAGGTTTAGGAGACGCGTGGGGACAGCCGAGCCGCGCC
GGGCCCTTGGACGCGCTGCGCAAGGAGCTGGGATCGCACTTGCTGCAGACTTTGGATGGATTGTTTTTG
TGGTAGCATCTGATGGCAAAATCATGTATATATCCGAGACCGCTTCTGTCCATTTAGGCTTATCCCAGGT
GGAGCTCACGGGCAACAGTATTTATGAATACATCCATCCTTCTGACCACGATGAGATGACCAGCTGTCCTC
ACGGCCACCAGCCGCTGCACCACCACCTGCTCCAAGAGTATGAGATAGAGAGGTCGTTCTTTCTCGAA
TGAAATGTGTCTTGGCGAAAAGAACGCGGGCCTGACCTGCAGCGGATACAAGGTCATCCACTGCAGTGG
CTACTTGAAGATCAGGCAGTATATGCTGGACATGTCCCTGTACGACTCCTGCTACCAGATTGTGGGGCTG
GTGGCCGTGGCCAGTCGCTGCCACCCAGTGCCATCACCGAGATCAAGCTGTACAGTAACATGTTTATGT
TCAGGGCCAGCCTTGACCTGAAGCTGATATTCCTGGATTCCAGGGTGACCGAGGTGACGGGGTACGAGCC
GCAGGACCTGATCGAGAAGACCCTATACCATCAGTGCACGGCTGCGACGTGTTCCACCTCCGCTACGCA
CACCACCTCCTGTTGGTGAAGGGCCAGGTCACCACCAAGTACTACCGGCTGCTGTCCAAGCGGGGCGGCT
GGGTGTGGGTGCAGAGCTACGCCACCGTGGTGCACAACAGCCGCTCGTCCCGGCCCACTGCATCGTGAG
TGTCAATTATGTACTCACGGAGATTGAATAACAAGAACTTACAGCTGTCCCTGGAGCAGGTGCCACTGCC
AAGTCCCAGGACTCCTGGAGGACCGCCTTGTCTACCTCACAAGAACTAGGAAATTAGTAAACCCAAAA
ATACCAAGATGAAGACAAAGCTGAGAACAACCCCTTACCCCCACAGCAATACAGCTCGTTCCAAATGGA
CAAACCTGGAATGCGGCCAGCTCGGAAACTGGAGAGCCAGTCCCCCTGCAAGCGCTGCTGCTCCTCCAGAA
CTGCAGCCCACTCAGAAAGCAGTGACCTTCTGTACAGCCATCCTACAGCCTGCCCTTCTCCTACCATT
ACGGACACTTCCCTCTGGACTCTCACGTCTTACGACGAAAAAGCCAATGTTGCCGGCCAAGTTCGGGCA
GCCCAAGGATCCCTTGTGAGGTGGCAGCCTTTTTCTGAGCACAATGCCAGCCAGCGGTGAATGCCAG
TGGCATTATGCCAACCCCTAGTGCCTAGCAGCTCGTCTCCAGCTAAAAATCCTCCAGAGCCACCGGCGA
ACACTGCTAGGCACAGCCTGGTGCCAAGCTACGAAGCGCCCGCCGCGCGCTGCGCAGGTTCCGGCAGGA
CACCGCGCCCCGAGCTTCCCGAGCTGCGGCCACTACCGCAGGAGCCCGCGCTGGGCCCGGCCAAAGCC
GCCCGCCAGGCCCGCCGGGACGGGGCGCGGCTGGCGCTGGCCCGCGCGGCACCCGAGTGTGCGCGCCCC
CGACCCCGAGGCCCGCCGGGCGCGCGGCGCAGCTGCCCTTCGTGCTGCTCAACTACCACCGCTGCTGGC
CGGGCGGACCGCTGGGGGGCGCGCACCCGCCCTCCGGCTGGCCTGCGCTCCCGGGGCCCGCCGAG
GCGGGCAGCCGGCGCGCTGCGGCTCCGGCACCCGAGCCCGCCGCCACCTCCCGCCGGCGCGCCCTGC
CGCACTACCTGGGCGCCTCGGTATCATACCAACGGGAGGTGA
```

Clone variation with respect to NM_005069.5
1447:a=>c

Restriction Sites: Please inquire
ACCN: NM_005069
Insert Size: 3700 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 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_005069.2](#), [NP_005060.1](#)

RefSeq Size: 4455 bp

RefSeq ORF: 2004 bp

Locus ID: 6493

UniProt ID: [Q14190](#)

Cytogenetics: 21q22.13

Protein Families: Druggable Genome, Transcription Factors

Gene Summary:

This gene represents a homolog of the *Drosophila* single-minded (*sim*) gene, which encodes a transcription factor that is a master regulator of neurogenesis. The encoded protein is ubiquitinated by RING-IBR-RING-type E3 ubiquitin ligases, including the parkin RBR E3 ubiquitin protein ligase. This gene maps within the so-called Down syndrome chromosomal region, and is thus thought to contribute to some specific Down syndrome phenotypes. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Sep 2014]

Transcript Variant: This variant (SIM2) represents the longer transcript and encodes the longer isoform (long).