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Product datasheet for RC222805

SIM1 (NM_005068) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SIM1 (NM_005068) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SIM1
Synonyms:	bHLHe14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC222805 representing NM_005068
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAAGAAAAGTCCAAAAATGCTGCGCGGACTAGGAGGGAGAAGGAAAACAGTGAATTTTATGAACTGG
CTAAATTACTGCCTTTGCCCTCGGCTATCACCTCGCAGCTGGACAAAGCATCCATAATCAGACTCACGAC
CAGCTATCTCAAAATGAGAGTGGTGTTCCCAGAAGGGCTCGGCGAGGCGTGGGGCCACTCAAGTCGGACC
AGCCCCCTGGACAACGTTGGCCGAGAACTGGGCTCCCATCTGCTCCAGACCCTGGATGGCTTCATCTTCG
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TGAAGTGCGTCTTGGCCAAGCGTAACGCCGGCCTCACCTGTGGCGGCTACAAGGTCATCCACTGCAGCGG
CTACTTGAAGATCCGCCAGTACAGCCTGGACATGTCCCCCTTCGACGGCTGCTACCAAAACGTGGGCCTG
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TCCGCGCCAGCCTGGACATGAAGCTCATCTTTCTGGACTCCAGGGTGGCGGAGCTGACGGGGTACGAACC
TCAGGACCTGATTGAGAAGACTCTGTACCACCATGTGCACGGCTGCGACACCTTCCACCTGCGCTGCGCG
CACCATTTGCTGCTGGTGAAGGGACAGGTGACCACCAAGTACTACAGGTTCCTGGCGAAACACGGCGGCT
GGGTATGGGTGCAGAGCTACGCGACCATCGTGCACAACAGTCGCTCCTCCAGGCCACACTGTATCGTCAG
CGTCAACTATGTCCTCACAGACACAGAATACAAAGGGCTGCAGCTCTCCCTGGATCAGATCTCAGCCTCC
AAACCAGCCTTCTCCTATACCAGCAGCTCCACCCCCACCATGACTGACAACAGAAAGGGGGCCAAATCCC
GGCTCTCCAGCTCAAAGTCAAAATCCAGGACTTCCCCATACCCTCAGTATTCGGGATTTCACACAGAAAG
ATCGGAATCTGATCATGACAGCCAGTGGGGCGGAAGTCCCTTGACCGACACGGCCTCTCCGCAGCTTCTG
GACCCCGCCGATAGGCCTGGCTCCCAGCACGACGCATCGTGCGCCTACAGACAGTTTTCGGACCGCAGCT
CTCTCTGCTATGGCTTTGCGCTTGACCACTCGAGGCTGGTGGAAGAGAGGCATTTCCATACCCAGGCCTG
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CTCACATCGCTTCAGTCCACAGGATCCATGGGCGAGGTCATTGGGATGAAGATAGTGTGGTCAGTTCTCC
AGACCCTGGGTCGGCCAGTGAATCAGGTGACCGATATCGTACTGAGCAGTATCAAAGTAGCCCACATGAA
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CACTATCTCGGATAAGTAGTCCCAATTCGGATCGCATTTCAAAATCCAGTTTGATCCTAGCTAAAGACTA
TCTGCATTCGGATATATCTCCTCATCAGACAGCAGGAGACCACCCTACTGTCTCTCCAAACTGCTTTGGC
TCTCACCGGCAGTATTTTGACAAGCATGCTTACACATTAACTGGATATGCCCTGGAGCACTTATATGACA
GCGAAACCATTAGAAACTATTCCTTGGGCTGTAATGGCTCACACTTTGATGTAACTTCCCATCTGAGGAT
GCAACCAGACCCAGCACAAGGACACAAGGGAACATCTGTTATAATAACCAACGGAAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC222805 representing NM_005068
Red=Cloning site Green=Tags(s)

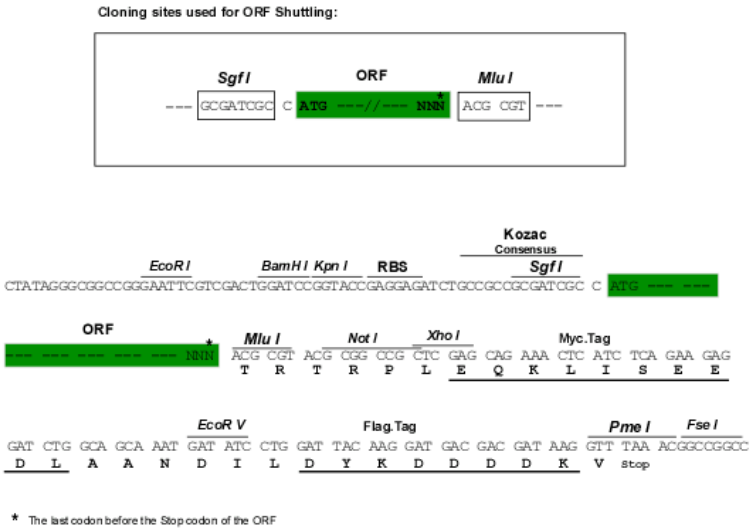
MKEKSKNAARTRREKENSEFYELAKLLPLPSAITSQLDKASIIRLTTSYLKMRVVFPEGLGEAWGHSSRT
SPLDNVGRELGSHLLQTLDGFIFVVAPDGKIMYISETASVHLGLSQVELTGNSIYEYIHPADHDEMTAVL
TAHQPYHSHFVQEYEIERSFFLRMKCVLAKRNAGLTCGGYKVIHCSGYLKIRQYSLDMSPFDGCYQNVGL
VAVGHSLPPSAVTEIKLHSNMFMFRASLDMKLIFLDSRVAELTGYEPQDLIEKTLYHHVHGCDTFHLRCA
HHLLLVKGQVTTKYYRFLAKHGGWVWVQSYATIVHNSRSSRPHCIVSVNYVLTDTEYKGLQLSLDQISAS
KPAFSYTSSSTPTMTDNRKGAKSRLSSSKSKSRTSPYPQYSGFHTERSESDHDSQWGGSPLTDTASPQLL
DPADRPGSQHDASCAYRQFSDRSSLCYGFALDHSRLVEERHFHTQACEGGRCEAGRYFLGTPQAGREPWW
GSRAALPLTKASPESREAYENSMPHIASVHRIHGRGHWDEDSVVSSPDPGSASESGDRYRTEQYQSSPHE
PSKIETLIRATQQMIKEEENRLQLRKAPSDQLASINGAGKKHSLCFANYQQPPPTGEVCHGSALANTSPC
DHIQQREGKMLSPHENDYDNSPTALSRISSPNSDRISKSSLILAKDYLHSDISPHQTAGDHPTVSPNCFG
SHRQYFDKHAYTLTGYALEHLYDSETIRNYSLGCNGSHFDVTSHLRMQPDPAQGHKGTSVIITNGS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8046_b10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

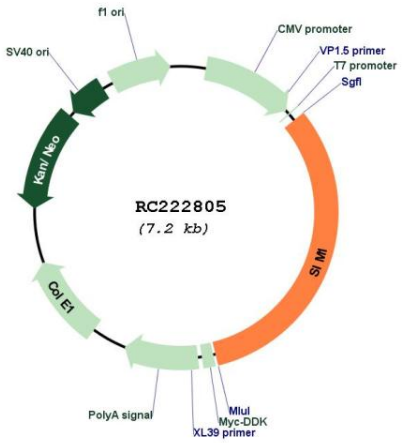


ACCN: NM_005068

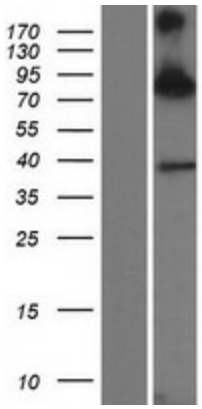
ORF Size: 2298 bp

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 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_005068.3
RefSeq Size:	3995 bp
RefSeq ORF:	2301 bp
Locus ID:	6492
UniProt ID:	P81133
Cytogenetics:	6q16.3
Protein Families:	Druggable Genome, Transcription Factors
MW:	85.3 kDa
Gene Summary:	SIM1 and SIM2 genes are Drosophila single-minded (sim) gene homologs. SIM1 transcript was detected only in fetal kidney out of various adult and fetal tissues tested. Since the sim gene plays an important role in Drosophila development and has peak levels of expression during the period of neurogenesis,it was proposed that the human SIM gene is a candidate for involvement in certain dysmorphic features (particularly the facial and skull characteristics), abnormalities of brain development, and/or cognitive disability of Down syndrome. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC222805



Western blot validation of overexpression lysate (Cat# [LY417552]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222805 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).