

Product datasheet for **RC208096**

SMARCAL1 (NM_014140) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMARCAL1 (NM_014140) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SMARCAL1
Synonyms:	HARP; HHARP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC208096 representing NM_014140
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCCTTGCCTCTTACAGAGGAGCAGAGGAAAAAGATTGAAGAGAATCGACAAAAGGCTCTGGCCCGCA
 GAGCTGAGAAGTTATTGGCAGAACAGCATCAGAGGACTAGCTCGGGCACCTCCATTGCTGGCAACCCATT
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 TGAAGTCTCAGAAGGGAAGTGCCTAAGGAACGGCGATCGTTCCAGGTGTTGATTGGGTACAATGCCGA
 ACTCATTGCAGTGTAAAGACCTGCCAGCAAGAATTATGATCCTGACACCAAGACGTGGAAGTTCAGC
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 CAGAAATGACAGAATCCACTGATTACCTCTACAAGGACCCAAAGCAGCAGAAGATCTACGACCTATTCCA
 GAAGTCTTTGAGAAAGAAGGAAGTATGAGGCTCCTGGAAGCAGCAGAGTCTTTGACCCAGGAAGT
 GCTTCAGGAACATCTGGAAGTAGTCCCAAGACATGGGAGACACCCTGGATGAAAGCTCATTGACAGCCA
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC208096 representing NM_014140
Red=Cloning site Green=Tags(s)

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MSLPLTEEQRKKIEENRQKALARRAEKLLAEQHQRSSSGTSIAGNPFQAKQGSPQNFPRESCKPVSHGVI
FKQONLSSSSNADQRPDHSFSFQAKGIWKKPEEMPTACPGHSPRSQMALTGISPLAQSPPEVPKQQLLS
YELGQGHAAQASPEIRFTPFANPTHKPLAKPKSSQETPAHSSGQPPRDAKLEAKTAKASPSGQNI SYIHSS
SESVTPRTEGRLQKQSGSSVQKGVNSQKGCVRNGDRFQVLIGYNAELIAVFKTLPSKNYDPDTKTWNFS
MNDYSALMKAQSLPTVNLQPLEWAYGSSESPSSSEGQAGLPSAPLSFVKGRCLISRAYFEADISYS
QDLIALFKQMDSRRYDVKTRKWSFLLEEHSKLIKVRCLPQVQLDPLPTTLTAFASQLKKTSLSTLTPDV
PEADLSEVDPKLVSNLMPFQRAGVNFIAKGGRLLLADDMGLGKTIQAICIAAFYRKEWPLLVVVPSVSR
FTWEQAFRLRWLPSLSPDCINVVVTGKDRLTAGLINIVSFDLLSKLEKQLKTPFKVVIIDESHFLKNSRTA
RCRAAMPVLKVAKRVIILSGTPAMSRPAELYTQIIAVKPTFFPQFHAFGLRYCDAKRMPWGDYSGSSNL
GELKLLLEEAVMLRRLKSDVLSQLPAKQRKIVVIAPGRINARTRAAALDAAKEMTTKDKTKQQKDALIL
FFNRTAEAKIPSVIEYILDLLLESGREKFLVFAHHKVVLDAITQELERKHVQHIRIDGSTSSAEREDLCQQ
FQLSERHAVAVLSITAAANMGLTFSSADLVVFAELFWNPGVLIQAEDRVHRIGQTSVYGIHYLVAKGTADD
YLWPLIQEKIKVLAEAGLSETNFSEMTESTDYLYKDPKQKIYDLFQKSFKEGSDMELLEAAESFDPGS
ASGTSGSSSQNMGDTLDESSLTASPQKRRFEFFDNWDSFTSPL
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja2228_d09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



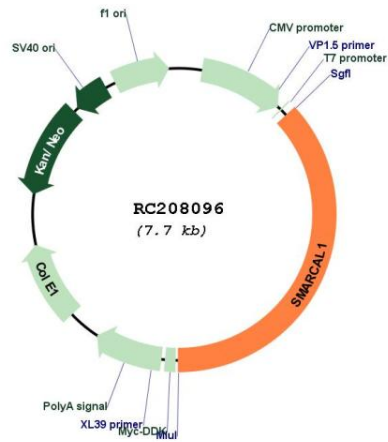
* The last codon before the Stop codon of the ORF

ACCN: NM_014140

ORF Size: 2862 bp

OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<p>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).</p>
Reconstitution Method:	<ol style="list-style-type: none">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_014140.4
RefSeq Size:	3281 bp
RefSeq ORF:	2865 bp
Locus ID:	50485
UniProt ID:	Q9NZC9
Cytogenetics:	2q35
Domains:	SNF2_N, DEAD, helicase_C
Protein Families:	Druggable Genome
MW:	106.4 kDa
Gene Summary:	<p>The protein encoded by this gene is a member of the SWI/SNF family of proteins. Members of this family have helicase and ATPase activities and are thought to regulate transcription of certain genes by altering the chromatin structure around those genes. The encoded protein shows sequence similarity to the E. coli RNA polymerase-binding protein HepA. Mutations in this gene are a cause of Schimke immunoosseous dysplasia (SIOD), an autosomal recessive disorder with the diagnostic features of spondyloepiphyseal dysplasia, renal dysfunction, and T-cell immunodeficiency. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RC208096