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Product datasheet for RC205294

SMCP (NM_030663) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMCP (NM_030663) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SMCP
Synonyms:	HSMCSGEN1; MCS; MCSP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205294 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTGTGACCAGACAAAACACAGTAAATGCTGCCCAGCAAAAGGCAATCAATGCTGCCCACCACAGCAGA ACCAGTGCTGCCAGTCAAAAGGCAATCAATGCTGCCCACCAAAACAGAACCAGTGCTGCCAGCCAAAAGG CAGTCAATGCTGCCCACCAAAACACAATCACTGCTGCCAGCCAAAACCCCCATGCTGCATTCAGGCCAGG TGCTGTGGTTTGGAGACCAAGCCTGAAGTCTCACCCCTTAACATGGAGTCTGAGCCCAACTCACCGCAAA CTCAGGACAAGGGCTGTCAAACCCAGCAGCAGCCCCATAGCCCACAAAATGAGTCCAGGCCAAGCAAA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Protein Sequence:	>RC205294 protein sequence Red=Cloning site Green=Tags(s) MCDQTKHSKCCPAKGNQCCPPQQNQCCQSKGNQCCPPKQNQCCQPKGSQCCPPKHNHCCQPKPPCCIQAR CCGLETKPEVSPLNMESEPNSPQTQDKGCQTQQQPHSPQNESRPSK TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Chromatograms:	https://cdn.origene.com/chromatograms/mk6315_d08.zip
Restriction Sites:	SgfI-MluI

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Cloning Scheme:

Cloning sites used for ORF Shuttling:

	Sgf I	ORF	Mlu I
---	GCGATCGC	C ATG ---//--- NNN	ACG CGT ---

EcoR I — BamH I Kpn I — RBS — Kozac Consensus — Sgf I

CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG --- ---

ORF
--- --- --- --- --- NNN
     Mlu I   Not I   Xho I   Myc.Tag
ACG CGT ACG CGG CCG CTC GAG CAG AAA CTC ATC TCA GAA GAG
 T   R   T   R   P   L   E   Q   K   L   I   S   E   E

              EcoR V   Flag.Tag   Pme I Fse I
GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAT AAG GTT TAA ACGGCCGGCC
 D   L   A   A   N   D   I   L   D   Y   K   D   D   D   D   K   V stop

* The last codon before the Stop codon of the ORF

|	
ACCN:	NM_030663
ORF Size:	348 bp
OTI Disclaimer:	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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_030663.3
RefSeq Size:	784 bp
RefSeq ORF:	351 bp

Locus ID:	4184
UniProt ID:	P49901
Cytogenetics:	1q21.3
MW:	12.8 kDa

Gene Summary: Sperm mitochondria differ in morphology and subcellular localization from those of somatic cells. They are elongated, flattened, and arranged circumferentially to form a helical coiled sheath in the midpiece of the sperm flagellum. The protein encoded by this gene localizes to the capsule associated with the mitochondrial outer membranes and is thought to function in the organization and stabilization of the helical structure of the sperm's mitochondrial sheath. [provided by RefSeq, Jul 2008]

Product images:
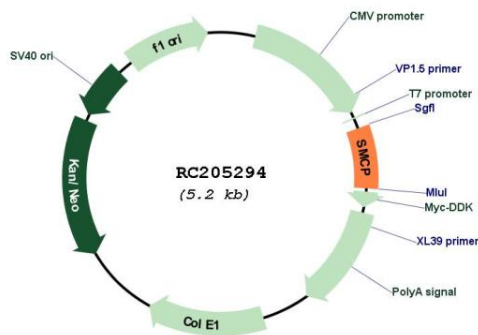
Circular map for RC205294
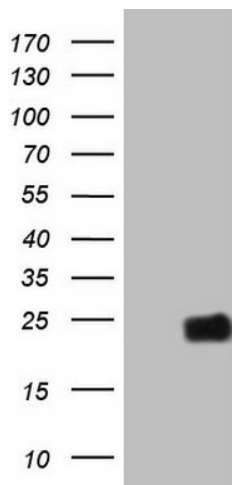
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SMCP (Cat# RC205294, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SMCP (Cat# [TA807753])(1:2000). Positive lysates [LY410741] (100ug) and [LC410741] (20ug) can be purchased separately from OriGene.
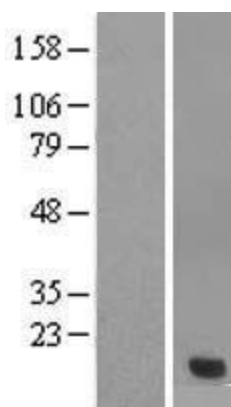
Western blot validation of overexpression lysate (Cat# [LY410741]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205294 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).