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Product datasheet for RC210602

SKA2 (NM_182620) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SKA2 (NM_182620) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SKA2
Synonyms:	FAM33A
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC210602 representing NM_182620 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGAGGCGGAGGTCGATAAGCTGGAACTGATGTTCCAGAAAGCTGAGTCTGATCTGGATTACATTCAAT ACAGGCTGGAATATGAAATCAAGACTAATCATCCTGATTCAGCAAGTGAGAAAAATCCAGTTACACTCTT AAAGGAATTGTCAGTGATAAAGTCTCGATATCAAACTTTGTATGCCCGCTTTAAACCAGTTGCTGTTGAG CAGAAAGAGAGTAAGAGCCGCATTTGTGCTACTGTGAAAAAGACTATGAATATGATACAAAAACTACAGA AGCAAACAGACCTGGAGCTGTCACCACTGACTAAAGAAGAGAAAACTGCGGCAGAGCAATTCAAATTTCA CATGCCAGATTTA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Protein Sequence:	>RC210602 representing NM_182620 Red=Cloning site Green=Tags(s) MEAEVDKLELMFQKAESDLDYIQYRLEYEIKTNHPDSASEKNPVTLLKELSVIKSRYQTLYARFKPVAVE QKESKSRICATVKKTMNMIQKLQKQTDLELSPLTKEEKTAAEQFKFHMPDL TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Restriction Sites:	SgfI-MluI

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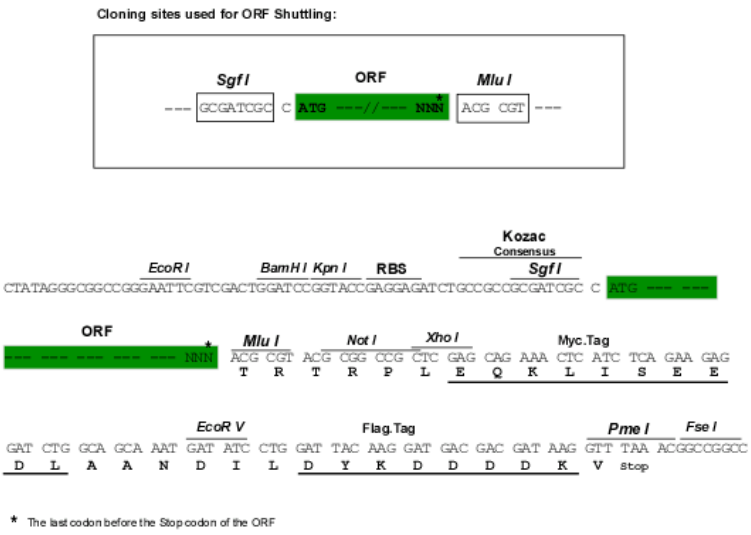
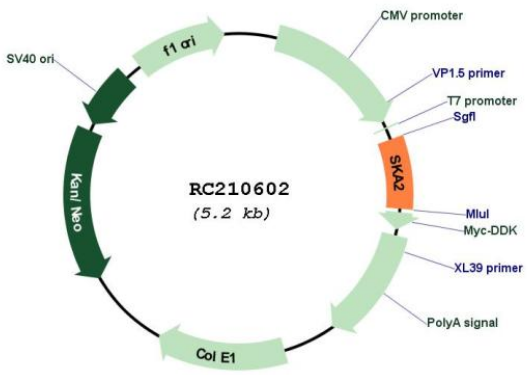
Cloning Scheme:



Plasmid Map:



ACCN: NM_182620

ORF Size: 363 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.
RefSeq:	NM_182620.4
RefSeq Size:	2990 bp
RefSeq ORF:	366 bp
Locus ID:	348235
UniProt ID:	Q8WVK7
Cytogenetics:	17q22
MW:	14.2 kDa
Gene Summary:	Component of the SKA1 complex, a microtubule-binding subcomplex of the outer kinetochore that is essential for proper chromosome segregation (PubMed:17093495, PubMed:19289083, PubMed:23085020). Required for timely anaphase onset during mitosis, when chromosomes undergo bipolar attachment on spindle microtubules leading to silencing of the spindle checkpoint (PubMed:17093495). The SKA1 complex is a direct component of the kinetochore-microtubule interface and directly associates with microtubules as oligomeric assemblies (PubMed:19289083). The complex facilitates the processive movement of microspheres along a microtubule in a depolymerization-coupled manner (PubMed:17093495, PubMed:19289083). In the complex, it is required for SKA1 localization (PubMed:19289083). Affinity for microtubules is synergistically enhanced in the presence of the ndc-80 complex and may allow the ndc-80 complex to track depolymerizing microtubules (PubMed:23085020).[UniProtKB/Swiss-Prot Function]