OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC202370

SKA1 (NM_145060) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SKA1 (NM_145060) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SKA1
Synonyms:	C18orf24
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC202370 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCTCGTCAGATCTGGAACAATTATGCTCTCATGTTAATGAAAAGATTGGCAATATTAAGAAAACCT
TATCATTAAGAAACTGTGGCCAGGAACCTACCTTGAAAACTGTATTAAATAAAATAGGAGATGAGATCAT
TGTAATAAATGAACTTCTAAATAAATTGGAATTGGAAATTCAGTATCAAGAACAAACCAACAATTCACTC
AAGGAACTCTGTGAATCTCTTGAAGAAGATTACAAAGACATAGAACATCTTAAAGAAAACGTTCCTTCCC
ATTTGCCTCAAGTAACAGTAACCCAGAGCTGTGTTAAGGGATCAGATCTTGATCCTGAAGAACCAATCAA
AGTTGAAGAACCTGAACCCGTAAAGAAGCCTCCCAAAGAGCAAAGAAGTATTAAGGAAATGCCATTTATA
ACTTGTGATGAGTTCAATGGTGTTCCTTCGTACATGAAATCCCGCTTAACCTATAATCAAATTAATGATG
TTATTAAAGAAATCAACAAGGCAGTAATTAGTAAATATAAAATCCTACATCAGCCAAAAAAGTCTATGAA
TTCTGTGACCAGAAATCTCTATCACAGATTTATTGATGAAGAAACGAAGGATACCAAAGGTCGTTATTTT
ATAGTGGAAGCTGACATAAAGGAGTTCACAACTTTGAAAGCTGACAAGAAGTTTCACGTGTTACTGAATA
TTTTACGACACTGCCGGAGGCTATCAGAGGTCCGAGGGGGAGGACTTACTCGTTATGTTATAACC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC202370 protein sequence
Red=Cloning site Green=Tags(s)

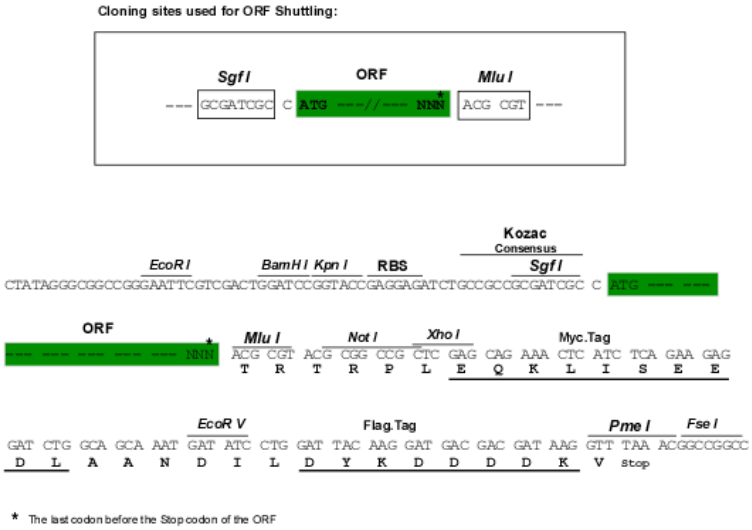
MASSDLEQLCSHVNEKIGNIKKTLSLRNCGQEPTLKTVLNKIGDEIIVINELLNKLELEIQYQEQTNNSL
KELCESLEEDYKDIEHLKENVPSHLPQVTVTQSCVKGSDLDPEEPIKVEEPEPVKKPPKEQRSIKEMPFI
TCDEFNGVPSYMKSRLTYNQINDVIKEINKAVISKYKILHQPKKSMNSVTRNLYHRFIDEETKDTKGRYF
IVEADIKEFTTLKADKKFHVLLNILRHCRRLSEVRGGGLTRYVIT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6540_h11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_145060

ORF Size: 765 bp

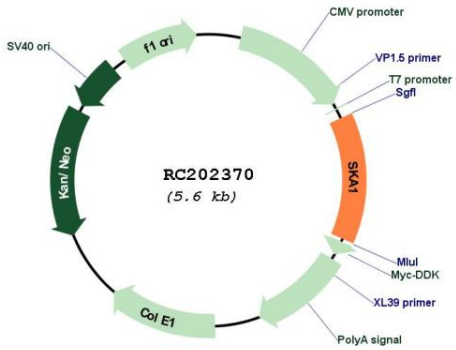
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

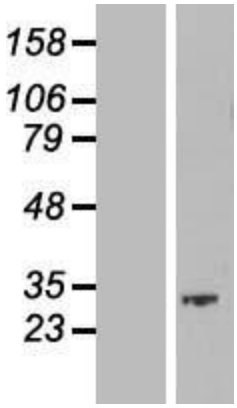
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_145060.4
RefSeq Size:	2893 bp
RefSeq ORF:	768 bp
Locus ID:	220134
UniProt ID:	Q96BD8
Cytogenetics:	18q21.1
MW:	29.5 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: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). In the complex, it mediates the interaction with microtubules (PubMed:19289083, PubMed:23085020).[UniProtKB/Swiss-Prot Function]

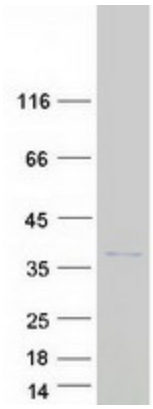
Product images:



Circular map for RC202370



Western blot validation of overexpression lysate (Cat# [LY422066]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC221913] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SKA1 protein (Cat# [TP302370]). The protein was produced from HEK293T cells transfected with SKA1 cDNA clone (Cat# RC202370) using MegaTran 2.0 (Cat# [TT210002]).