

Product datasheet for RC221913

SKA1 (NM_001039535) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SKA1 (NM_001039535) 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:	>RC221913 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCTCGTCAGATCTGGAACAATTATGCTCTCATGTTAATGAAAAGATTGGCAATTAAGAAAACCT
TATCATTAAAGAACTGTGGCCAGGAACCTACCTTGAAAAGTATTAATAAAAATAGGAGATGAGATCAT
TGTAATAAATGAACTTCTAAATAAATTGGAATTGGAAATTCAGTATCAAGAACAAACCAACAATTCCTC
AAGGAACCTCTGTGAATCTCTTGAAGAAGATTACAAAGACATAGAACATCTTAAAGAAAACGTTCCCTCCC
ATTTGCCTCAAGTAACAGTAACCCAGAGCTGTGTTAAGGGATCAGATCTTGATCCTGAAGAACCAATCAA
AGTTGAAGAACCTGAACCCGTAAAGAAGCCTCCCAAAGAGCAAAGAAGTATTAAGGAAATGCCATTATA
ACTTGTGATGAGTTCAATGGTGTTCCTTCGTACATGAAATCCCGCTTAACCTATAATCAAATTAATGATG
TTATTAAGAAATCAACAAGGCAGTAATTAGTAAATATAAAATCCTACATCAGCCAAAAAGTCTATGAA
TTCTGTGACCAGAAATCTCTATCACAGATTTATTGATGAAGAAACGAAGGATACCAAAGGTCTTATTTT
ATAGTGAAGCTGACATAAAGGAGTTCACAACCTTTGAAAGCTGACAAGAAGTTTCACGTGTTACTGAATA
TTTTACGACACTGCCGGAGGCTATCAGAGGTCCGAGGGGAGGACTTACTCGTTATGTTATAACC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC221913 protein sequence
Red=Cloning site Green=Tags(s)

MASSDLEQLCSHVNEKIGNIKKTLSLRNCGQEPTLKTVLNKIGDEIIVINELLNKLELEIQYQEQTNNSL
 KELCESLEEDYKDIEHLKENVPSHLPQVTVTQSCVKGSDDLPEEPIKVEEPEPVKKPPKEQRSIKEMPFII
 TCDEFNGVPSYMKSRLLTYNQINDVIKEINKAVISKYKILHQPKSMNSVTRNLVYHRFIDEETKDKTGRYF
 IVEADIKEFTTLKADKKFHVLLNILRHCRRLLSEVRGGGLTRYVIT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001039535

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.

RefSeq: [NM_001039535.3](#)

RefSeq Size: 2938 bp

RefSeq ORF: 768 bp

Locus ID: 220134

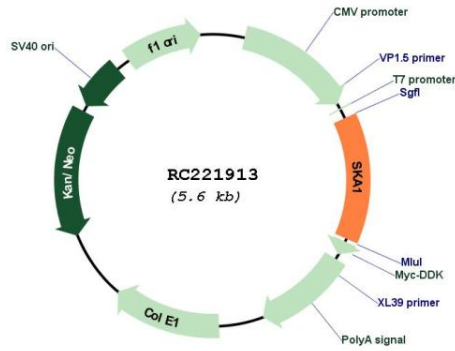
UniProt ID: [Q96BD8](#)

Cytogenetics: 18q21.1

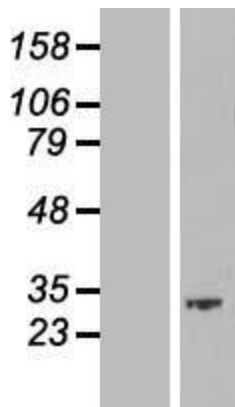
MW: 29.5 kDa

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]

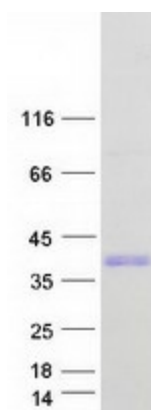
Product images:



Circular map for RC221913



Western blot validation of overexpression lysate (Cat# [LY422066]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected 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# [TP321913]). The protein was produced from HEK293T cells transfected with SKA1 cDNA clone (Cat# RC221913) using MegaTran 2.0 (Cat# [TT210002]).