

SKA1 Antibody
Catalog # ASC10981**Specification****SKA1 Antibody - Product Information**

Application	WB
Primary Accession	Q96BD8
Other Accession	Q96BD8 , 74731226
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	SKA1 antibody can be used for detection of SKA1 by Western blot at 0.5 - 1 µg/mL.

SKA1 Antibody - Additional Information

Gene ID	220134
Target/Specificity	
SKA1;	

Reconstitution & Storage

SKA1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

SKA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SKA1 Antibody - Protein Information

Name SKA1

Synonyms C18orf24

Function

Component of the SKA1 complex, a microtubule-binding subcomplex of the outer kinetochore that is essential for proper chromosome segregation (PubMed: [17093495](http://www.uniprot.org/citations/17093495), PubMed: [19289083](http://www.uniprot.org/citations/19289083), PubMed: [23085020](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/17093495)). The SKA1 complex is a direct component of the kinetochore-microtubule interface and directly associates with microtubules as oligomeric assemblies (PubMed: [19289083](http://www.uniprot.org/citations/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).

Cellular Location

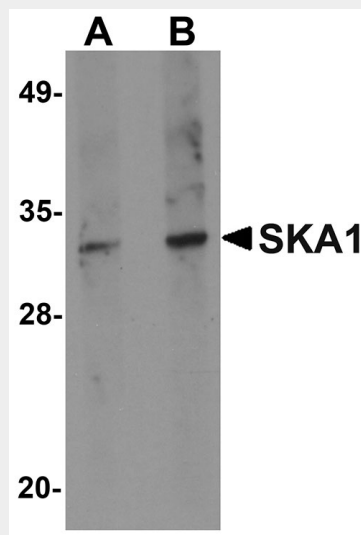
Cytoplasm, cytoskeleton, spindle. Chromosome, centromere, kinetochore. Note=Localizes to the outer kinetochore and spindle microtubules during mitosis in a NDC80 complex-dependent manner (PubMed:17093495). Localizes to both the mitotic spindle and kinetochore-associated proteins (PubMed:17093495). Associates with kinetochores following microtubule attachment from prometaphase, through mid-anaphase and then vanishes in telophase (PubMed:17093495)

SKA1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SKA1 Antibody - Images



Western blot analysis of SKA1 in A549 cell lysate with SKA1 antibody at (A) 0.5 and (B) 1 µg/mL.

SKA1 Antibody - Background

SKA1 Antibody: Upon entry into mitosis, the cell's microtubule (MT) network forms the mitotic spindle, allowing the segregation of paired chromosomes. Proteinaceous structures on centromeric chromatin termed kinetochores (KT) are essential for the proper attachment of the chromosomes to

the spindle MTs. A recently discovered spindle and kinetochore complex, comprised of proteins SKA1, SKA2, and SKA3, has been found to be required for stable KT-MT interactions and timely anaphase onset. Depletion of either SKA1 or SKA2 by siRNA results in the loss of both proteins from the KT, but does not impact overall KT structure. Cells depleted of the SKA complex undergo a prolonged checkpoint-dependent delay in a metaphase-like state, indicating the importance of the SKA complex in the maintenance of the metaphase plate and spindle checkpoint silencing.

SKA1 Antibody - References

Cleveland DW, Mao Y, and Sullivan KF. Centromeres and kinetochores: from epigenetics to mitotic checkpoint signaling. *Cell* 2003; 112:407-21.

Hanisch A, Sillje HHW, and Nigg EA. Timely anaphase onset requires a novel spindle and kinetochore complex comprising Ska1 and Ska *EMBO J.* 2006; 25:5504-15.

Gaitanos TN, Santamaria A, Jeyaparakash AA, et al. Stable kinetochore-microtubule interactions depend on the Ska complex and its new component Ska3/C13Orf *EMBO J.* 2009; 28:1442-52.