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SKA2 Antibody

Catalog # ASC10982

Product Information

Application	WB, E
Primary Accession	Q8WVK7
Other Accession	NP_872426, 32699054
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	14188
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SKA2 antibody can be used for detection of SKA2 by Western blot at 0.5 - 1 g/mL.

Additional Information

Gene ID	348235
Other Names	Spindle and kinetochore-associated protein 2, Protein FAM33A, SKA2, FAM33A
Target/Specificity	SKA2;
Reconstitution & Storage	SKA2 antibody can be stored at 4℃ for three months and -20℃, 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	SKA2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SKA2
Synonyms	FAM33A
Function	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).

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. Localizes to both the mitotic spindle and kinetochore- associated proteins.

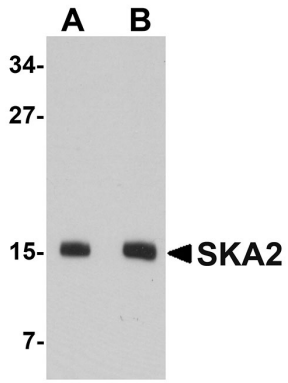
Background

SKA2 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. SKA2 has also been shown to interact with glucocorticoid receptors and to be involved in glucocorticoid signaling and cell proliferation.

References

Cleveland DW, Mao Y, and Sullivan KF. Centromeres and kinetochores: from epigenetics to mitotic checkpoint signaling. Cell2003; 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, Jeyaprakash AA, et al. Stable kinetochore-microtubule interactions depend on the Ska complex and its new component Ska3/C13Orf EMBO J.2009; 28:1442-52.
Rice L, Water CE, Eccles J, et al. Identification and functional analysis of SKA2 interaction with the glucocorticoid receptor. J. Endocrinol.2008; 198:499-509.

Images



Western blot analysis of SKA2 in 3T3 cell lysate with SKA2 antibody at (A) 0.5 and (B) 1 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.