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Ska1 antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI13799

Product Information

Application	WB
Primary Accession	Q9CPV1
Other Accession	NM_025581, NP_079857
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Dog, Horse, Bovine
Predicted	Human, Mouse, Rat, Rabbit, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	29459

Additional Information

Gene ID	66468
Alias Symbol	2810433K01Rik, AV117428
Other Names	Spindle and kinetochore-associated protein 1, Ska1
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-Ska1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	Ska1 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Ska1
Function	Component of the SKA complex, a microtubule plus end-binding complex of the outer kinetochore that stabilizes spindle microtubule- kinetochore attachments, promotes alignment of chromosomes at the mitotic spindle equator (chromosome congression) and assists suppression of the spindle assembly checkpoint (By similarity). Kinetochores, consisting of a centromere-associated inner segment and a microtubule-contacting outer segment, play a crucial role in chromosome segregation by mediating the physical connection between centromeric DNA and spindle microtubules (By similarity). The outer kinetochore is made up of the ten-subunit KMN network complex, comprising the MIS12, NDC80 and KNL1 complexes, and auxiliary microtubule-associated components such as the SKA complex; together they

connect the outer kinetochore with the inner kinetochore, bind microtubules, and mediate interactions with mitotic checkpoint proteins that delay anaphase until chromosomes are bioriented on the spindle (By similarity). The SKA complex is loaded onto bioriented kinetochores and it facilitates chromosome congression by stabilizing microtubules together with MAPRE1, and end-on attachment of the NDC80 complex to depolymerizing spindle microtubules, thereby assisting the poleward-moving kinetochore in withstanding microtubule pulling forces (By similarity). The complex associates with dynamic microtubule plus-ends and can track both depolymerizing and elongating microtubules (By similarity). The complex recruits protein phosphatase 1 (PP1) to the kinetochore in prometaphase and metaphase, to oppose spindle assembly checkpoint signaling and promote the onset of anaphase (By similarity). In the complex, it mediates interactions with microtubules (By similarity). It also stimulates AURKB/Aurora B catalytic activity (By similarity). During meiosis the SKA complex stabilizes the meiotic spindle and is required for its migration to the cortex (PubMed:22336914).

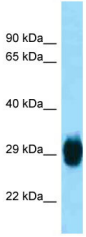
Cellular Location

Cytoplasm, cytoskeleton, spindle. Chromosome, centromere, kinetochore {ECO:0000250|UniProtKB:Q96BD8}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome {ECO:0000250|UniProtKB:Q96BD8} Note=Localizes to bioriented kinetochores and spindle microtubules during metaphase in a NDC80 complex-dependent manner (By similarity) The SKA complex begins to concentrate at kinetochores before microtubule attachment but reaches maximum levels on bioriented metaphase chromosomes (By similarity). Localizes both to microtubule plus-ends and along the length of microtubules (By similarity). The localization of the SKA complex to kinetochores is positively regulated by kinase CDK1 (By similarity). The localization of the SKA complex to kinetochores is negatively regulated by protein serine/threonine kinase AURKB, and this action is opposed directly or indirectly by the PP1 and PP2A protein phosphatase complexes (By similarity). Localizes at the centrosome during interphase and prophase (By similarity). Localizes to the meiotic spindle, but not to kinetochores, from the stage of germinal vesicle breakdown (GVBD) to meiosis II (MII) (PubMed:22336914). {ECO:0000250|UniProtKB:Q96BD8, ECO:0000269|PubMed:22336914}

References

Chatterjee B.,et al.Submitted (AUG-2006) to the EMBL/GenBank/DDBJ databases.
Carninci P.,et al.Science 309:1559-1563(2005).

Images



WB Suggested Anti-Ska1 Antibody Titration: 1.0 µg/ml
Positive Control: Mouse Pancreas