SANTA CRUZ BIOTECHNOLOGY, INC.

Ska2 (P-13): sc-136867



BACKGROUND

Ska2 (spindle and kinetochore associated complex subunit 2), also known as FAM33A, is a 121 amino acid component of the Ska1 complex, a microtubule-binding subcomplex of the outer kinetochore that is critical for proper chromosome segregation. The Ska1 complex is a component of the kinetochore-microtubule interface and directly associates with microtubules as oligomeric assemblies. Localized to the outer kinetochore and spindle microtubules during cell proliferation, Ska2 is essential for spindle checkpoint silencing and exit from mitosis. Downregulation of Ska2 leads to delayed recruitment of MAD2, a component of the mitotic spindle checkpoint, to several kinetochores resulting in occasional loss of individual chromosomes from the metaphase plate. Ska2 is encoded by a gene located on human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

REFERENCES

- 1. Hanisch, A., et al. 2006. Timely anaphase onset requires a novel spindle and kinetochore complex comprising Ska1 and Ska2. EMBO J. 25: 5504-5515.
- 2. Wang, C. and St Leger, R.J. 2007. The MAD1 adhesin of Metarhizium anisopliae links adhesion with blastospore production and virulence to insects, and the MAD2 adhesin enables attachment to plants. Eukaryotic Cell 6: 808-816.
- 3. Rice, L., et al. 2008. Identification and functional analysis of Ska2 interaction with the glucocorticoid receptor. J. Endocrinol. 198: 499-509.
- Daub, H., et al. 2008. Kinase-selective enrichment enables quantitative phosphoproteomics of the kinome across the cell cycle. Mol. Cell 31: 438-448.
- Daum, J.R., et al. 2009. Ska3 is required for spindle checkpoint silencing and the maintenance of chromosome cohesion in mitosis. Curr. Biol. 19: 1467-1472.
- Welburn, J.P., et al. 2009. The human kinetochore Ska1 complex facilitates microtubule depolymerization-coupled motility. Dev. Cell 16: 374-385.
- Guimaraes, G.J. and Deluca, J.G. 2009. Connecting with Ska, a key complex at the kinetochore-microtubule interface. EMBO J. 28: 1375-1377.
- 8. Gaitanos, T.N., et al. 2009. Stable kinetochore-microtubule interactions depend on the Ska complex and its new component Ska3/C130rf3. EMBO J. 28: 1442-1452.
- 9. Oppermann, F.S., et al. 2009. Large-scale proteomics analysis of the human kinome. Mol. Cell Proteomics 8: 1751-1764.

CHROMOSOMAL LOCATION

Genetic locus: SKA2 (human) mapping to 17q22.

SOURCE

Ska2 (P-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Ska2 of human origin.

PRODUCT

Each vial contains 100 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136867 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ska2 (P-13) is recommended for detection of Ska2 and Ska2L of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Ska1 family members.

Ska2 (P-13) is also recommended for detection of Ska2 and Ska2L in additional species, including equine.

Suitable for use as control antibody for Ska2 siRNA (h): sc-94176, Ska2 shRNA Plasmid (h): sc-94176-SH and Ska2 shRNA (h) Lentiviral Particles: sc-94176-V.

Molecular Weight of Ska2: 18 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MCF7 nuclear extract: sc-2149 or A549 cell lysate: sc-2413.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed

Try **Ska2 (H-2): sc-514495**, our highly recommended monoclonal alternative to Ska2 (P-13).