SANTA CRUZ BIOTECHNOLOGY, INC.

Ska2 (H-2): sc-514495

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Eukaryot. 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.

CHROMOSOMAL LOCATION

Genetic locus: SKA2 (human) mapping to 17q22; Ska2 (mouse) mapping to 11 C.

SOURCE

Ska2 (H-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 16-31 near the N-terminus of Ska2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ska2 (H-2) is available conjugated to agarose (sc-514495 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514495 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514495 PE), fluorescein (sc-514495 FITC), Alexa Fluor® 488 (sc-514495 AF488), Alexa Fluor® 546 (sc-514495 AF546), Alexa Fluor® 594 (sc-514495 AF594) or Alexa Fluor® 647 (sc-514495 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514495 AF680) or Alexa Fluor® 790 (sc-514495 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514495 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

Ska2 (H-2) is recommended for detection of Ska2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Ska2 siRNA (h): sc-94176, Ska2 siRNA (m): sc-153474, Ska2 shRNA Plasmid (h): sc-94176-SH, Ska2 shRNA Plasmid (m): sc-153474-SH, Ska2 shRNA (h) Lentiviral Particles: sc-94176-V and Ska2 shRNA (m) Lentiviral Particles: sc-153474-V.

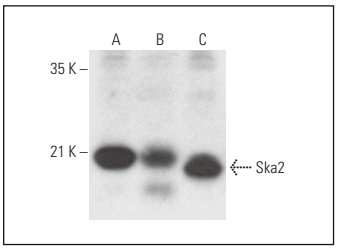
Molecular Weight of Ska2: 18 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, 3T3-L1 cell lysate: sc-2243 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Ska2 (H-2): sc-514495. Western blot analysis of Ska2 expression in 3T3-L1 (**A**), NIH/3T3 (**B**) and Jurkat (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Gomes, A.M., et al. 2022. Micronuclei from misaligned chromosomes that satisfy the spindle assembly checkpoint in cancer cells. Curr. Biol. 32: 4240-4254.e5.

STORAGE

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