

Ska3 (h): 293T Lysate: sc-371164

BACKGROUND

Ska3, also designated C13orf3 or RAMA1, is a 412 amino acid protein that belongs to the RAMA1 family of proteins. A component of the SKA1 complex, Ska3 localizes to the outer kinetochore and spindle microtubules during mitosis. The SKA1 complex is a microtubule-binding subcomplex of the outer kinetochore and is composed of two Ska1-Ska2 heterodimers, each heterodimer interacting with a Ska3 homodimer. Within the complex, which is important for chromosome segregation and facilitates microsphere movement along microtubules, Ska3 acts as a mediator of microtubule-stimulated oligomerization. The gene encoding for Ska3 maps to chromosome 13. Comprising nearly 4% of human DNA, chromosome 13 contains around 114 million base pairs and 400 genes. Key tumor suppressor genes on chromosome 13 include the breast cancer susceptibility gene, BRCA2, and the RB1 (retinoblastoma) gene. RB1 encodes a crucial tumor suppressor protein which, when defective, leads to malignant growth in the retina and has been implicated in a variety of other cancers. The gene SLITRK1, which is associated with Tourette syndrome, is on chromosome 13. As with most chromosomes, polysomy of part or all of chromosome 13 is deleterious to development and decreases the odds of survival. Trisomy 13, also known as Patau syndrome, is quite deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

REFERENCES

1. Dunham, A., et al. 2004. The DNA sequence and analysis of human chromosome 13. *Nature* 428: 522-528.
2. Deng, H., et al. 2006. Examination of the SLITRK1 gene in Caucasian patients with Tourette syndrome. *Acta Neurol. Scand.* 114: 400-402.
3. Giacinti, C., et al. 2006. RB and cell cycle progression. *Oncogene* 25: 5220-5227.
4. Grados, M.A., et al. 2006. A new gene for Tourette's syndrome: a window into causal mechanisms? *Trends Genet.* 22: 291-293.

CHROMOSOMAL LOCATION

Genetic locus: SKA3 (human) mapping to 13q12.11.

PRODUCT

Ska3 (h): 293T Lysate represents a lysate of human Ska3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Ska3 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Ska3 antibodies. Recommended use: 10-20 µl per lane.

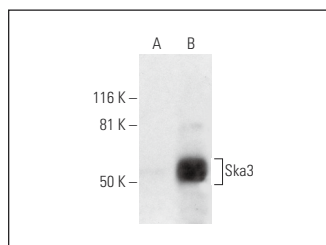
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Ska3 (H-9): sc-390966 is recommended as a positive control antibody for Western Blot analysis of enhanced human Ska3 expression in Ska3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

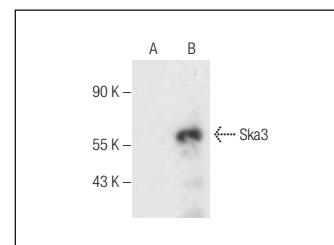
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Ska3 (H-9): sc-390966. Western blot analysis of Ska3 expression in non-transfected: sc-117752 (A) and human Ska3 transfected: sc-371164 (B) 293T whole cell lysates.



Ska3 (B-1): sc-390326. Western blot analysis of Ska3 expression in non-transfected: sc-117752 (A) and human Ska3 transfected: sc-371164 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.