SANTA CRUZ BIOTECHNOLOGY, INC.

Tektin 1 (E-5): sc-398507

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Tektin proteins comprise a family of insoluble, α-helical, filament-forming peptides that interact with Tubulins and, via this interaction, form flagellar and ciliary microtubules. Tektin 1, also known as TEKT1, is a 418 amino acid protein that is expressed in testis and contains four evolutionary conserved cysteines and one Tektin-specific peptide sequence. Similar to other members of the Tektin family, Tektin 1 functions as a structural component of microtubules, specifically forming polymers in the walls of microtubules and stabilizing overall microtubule structure. Additionally, Tektin 1 may play a role in spermatogenesis.

REFERENCES

1. Stephens, R.E. and Lemieux, N.A. 1998. Tektins as structural determinants in basal bodies. Cell Motil. Cytoskeleton 40: 379-392.
2. Larsson, M., et al. 2000. The spatial and temporal expression of Tekt1, a mouse tektin C homologue, during spermatogenesis suggest that it is involved in the development of the sperm tail basal body and axoneme. Eur. J. Cell Biol. 79: 718-725.
3. Xu, M., et al. 2001. Cloning and characterization of a novel human Tektin-t gene. Int. J. Biochem. Cell Biol. 33: 1172-1182.
4. Iguchi, N., et al. 2002. Cloning and characterization of the human Tektin-t gene. Mol. Hum. Reprod. 8: 525-530.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609002. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Clark, A.T., et al. 2004. Spontaneous differentiation of germ cells from human embryonic stem cells *in vitro*. Hum. Mol. Genet. 13: 727-739.

CHROMOSOMAL LOCATION

Genetic locus: TEKT1 (human) mapping to 17p13.1.

SOURCE

Tektin 1 (E-5) is a mouse monoclonal antibody raised against amino acids 1-120 mapping at the N-terminus of Tektin 1 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.

Tektin 1 (E-5) is available conjugated to agarose (sc-398507 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398507 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398507 PE), fluorescein (sc-398507 FITC), Alexa Fluor® 488 (sc-398507 AF488), Alexa Fluor® 546 (sc-398507 AF546), Alexa Fluor® 594 (sc-398507 AF594) or Alexa Fluor® 647 (sc-398507 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398507 AF680) or Alexa Fluor® 790 (sc-398507 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

Tektin 1 (E-5) is recommended for detection of Tektin 1 of 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 Tektin 1 siRNA (h): sc-94243, Tektin 1 siRNA (m): sc-154181, Tektin 1 shRNA Plasmid (h): sc-94243-SH, Tektin 1 shRNA Plasmid (m): sc-154181-SH, Tektin 1 shRNA (h) Lentiviral Particles: sc-94243-V and Tektin 1 shRNA (m) Lentiviral Particles: sc-154181-V.

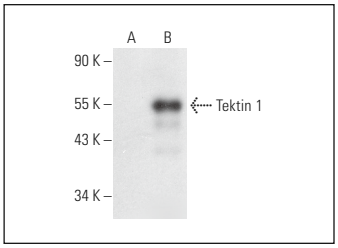
Molecular Weight of Tektin 1: 48 kDa.

Positive Controls: Tektin 1 (h2): 293T Lysate: sc-171982.

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



Tektin 1 (E-5): sc-398507. Western blot analysis of Tektin 1 expression in non-transfected: sc-117752 (**A**) and human Tektin 1 transfected: sc-171982 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Urizar-Arenaza, I., et al. 2020. SPANX-A/D protein subfamily plays a key role in nuclear organisation, metabolism and flagellar motility of human spermatozoa. Sci. Rep. 10: 5625.

STORAGE

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