TES (G-5): sc-373913

SANTA CRUZ® BIOTECHNOLOGY

The Power to Question

BACKGROUND

TES was originally identified as a candidate tumour suppressor gene and has been found to encode a novel focal adhesion protein called TES or Testin. TES localizes to cell-cell contacts, Actin stress fiber and interacts with a variety of cytoskeletal proteins including Zyxin, Mena, VASP, Talin and Actin. The ability of TES to associate with α-actinin, paxillin and Zyxin is dependent on the conformational state of the molecule. TES contains three LIM zinc-binding domains and may act as a tumor suppressor. Overexpression of the TES gene results in increased cell spreading and decreased cell motility.

REFERENCES

1. Garvalov, B.K., et al. 2003. The conformational state of TES regulates its Zyxin-dependent recruitment to focal adhesions. J. Cell Biol. 161: 33-39.

2. Coutts, A.S., et al. 2003. TES is a novel focal adhesion protein with a role in cell spreading. J. Cell Sci. 116: 897-906.

3. Chêne, L., et al. 2004. Extensive analysis of the 7q31 region in human prostate tumors supports TES as the best candidate tumor suppressor gene. Int. J. Cancer 111: 798-804.

4. Rotter, B., et al. 2005. αII-spectrin interacts with Tes and EVL, two Actin-binding proteins located at cell contacts. Biochem. J. 388: 631-638.

CHROMOSOMAL LOCATION

Genetic locus: TES (human) mapping to 7q31.2; Tes (mouse) mapping to 6 A2.

SOURCE

TES (G-5) is a mouse monoclonal antibody raised against amino acids 304-398 mapping near the C-terminus of TES 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.

APPLICATIONS

TES (G-5) is recommended for detection of TES 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).

TES (G-5) is also recommended for detection of TES in additional species, including equine.

Suitable for use as control antibody for TES siRNA (h): sc-45509, TES siRNA (m): sc-45510, TES shRNA Plasmid (h): sc-45509-SH, TES shRNA Plasmid (m): sc-45510-SH, TES shRNA (h) Lentiviral Particles: sc-45509-V and TES shRNA (m) Lentiviral Particles: sc-45510-V.

Molecular Weight of TES: 48 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, PC-3 cell lysate: sc-2220 or human testis extract: sc-363781.

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
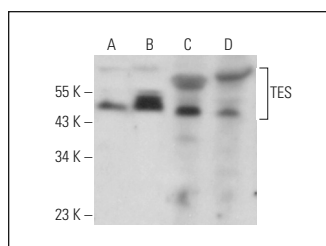
TES (G-5): sc-373913. Western blot analysis of TES expression in K-562 (**A**) and PC-3 (**B**) whole cell lysates and human testis (**C**) and rat testis (**D**) tissue extracts.
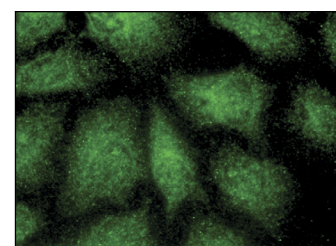
TES (G-5): sc-373913. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

1. Byron, A., et al. 2022. Characterisation of a nucleo-adhesome. Nat. Commun. 13: 3053.

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 for detailed protocols and support products.