

Tctex5 (D-9): sc-376034

BACKGROUND

Tctex5, also known as PPP1R11 (protein phosphatase 1, regulatory (inhibitor) subunit 11), HCGV or TCTE5, is a 126 amino acid protein that is expressed in a variety of both adult and fetal tissues. Tctex5 functions as an inhibitor of PP1 (protein phosphatase 1), specifically exhibiting a sensitivity toward the metal-independent and metal-dependent forms of PP1. Sharing 87% sequence similarity with its mouse counterpart, Tctex5 is thought to be evolutionarily conserved throughout animal evolution, particularly between rat, bovine, canine, rabbit and human. The gene encoding Tctex5 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

1. Amadou, C., et al. 1995. Localization of new genes and markers to the distal part of the human major histocompatibility complex (MHC) region and comparison with the mouse: new insights into the evolution of mammalian genomes. *Genomics* 26: 9-20.
2. Lepourcelet, M., et al. 1996. Systematic sequencing of the human HLA-A/HLA-F region: establishment of a cosmid contig and identification of a new gene cluster within 37 kb of sequence. *Genomics* 37: 316-326.
3. Giffon, T., et al. 1996. Cloning of a human homologue of the mouse Tctex-5 gene within the MHC class I region. *Immunogenetics* 44: 331-339.
4. Zhang, J., et al. 1998. Identification and characterization of the human HCG V gene product as a novel inhibitor of protein phosphatase-1. *Biochemistry* 37: 16728-16734.

CHROMOSOMAL LOCATION

Genetic locus: PPP1R11 (human) mapping to 6p22.1.

SOURCE

Tctex5 (D-9) is a mouse monoclonal antibody raised against amino acids 1-126 representing full length Tctex5 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Tctex5 (D-9) is available conjugated to agarose (sc-376034 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376034 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376034 PE), fluorescein (sc-376034 FITC), Alexa Fluor® 488 (sc-376034 AF488), Alexa Fluor® 546 (sc-376034 AF546), Alexa Fluor® 594 (sc-376034 AF594) or Alexa Fluor® 647 (sc-376034 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376034 AF680) or Alexa Fluor® 790 (sc-376034 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Tctex5 (D-9) is recommended for detection of Tctex5 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 Tctex5 siRNA (h): sc-95416, Tctex5 shRNA Plasmid (h): sc-95416-SH and Tctex5 shRNA (h) Lentiviral Particles: sc-95416-V.

Molecular Weight of Tctex5: 23 kDa.

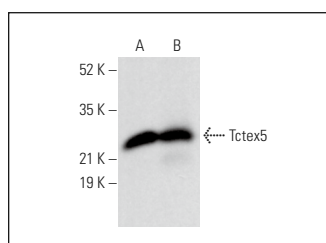
Positive Controls: MDA-MB-231 cell lysate: sc-2232 or human cerebral cortex extract: sc-516107.

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



Tctex5 (D-9): sc-376034. Western blot analysis of Tctex5 expression in MDA-MB-231 whole cell lysate (A) and human cerebral cortex tissue extract (B).

SELECT PRODUCT CITATIONS

1. Joshi, R.N., et al. 2019. Phosphatase inhibitor PPP1R11 modulates resistance of human T cells toward Treg-mediated suppression of cytokine expression. *J. Leukoc. Biol.* 106: 413-430.

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.