SANTA CRUZ BIOTECHNOLOGY, INC.

TSPAN8 (1E5): sc-293317

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TSPAN8 (tetraspanin 8), also known as TM4SF3 or CO-029, is a 237 amino acid multi-pass membrane protein that belongs to the tetraspanin family of transmembrane proteins and is thought to play a role in signal transduction events that influence cell development, activation, growth and motility. Localized to the cell membrane, TSPAN8 is expressed in colon, gastric, renal and pancreatic cancers, strongly suggesting a role in cancer formation and metastasis. The gene encoding TSPAN8 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

1. Szala, S., et al. 1990. Molecular cloning of cDNA for the human tumor-associated antigen CO-029 and identification of related transmembrane antigens. Proc. Natl. Acad. Sci. USA 87: 6833-6837.
2. Gwynn, B., et al. 1996. Genetic localization of Cd63, a member of the transmembrane 4 superfamily, reveals two distinct loci in the mouse genome. Genomics 35: 389-391.
3. Serru, V., et al. 1999. Selective tetraspan-integrin complexes (CD81/α4β1, CD151/α3β1, CD151/α6β1) under conditions disrupting tetraspan interactions. Biochem. J. 340: 103-111.
4. Berditchevski, F. 2001. Complexes of tetraspanins with integrins: more than meets the eye. J. Cell Sci. 114: 4143-4151.
5. Kanetaka, K., et al. 2001. Overexpression of tetraspanin CO-029 in hepatocellular carcinoma. J. Hepatol. 35: 637-642.
6. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 600769. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
7. Grarup, N., et al. 2008. Association testing of novel type 2 diabetes risk alleles in the JAZF1, CDC123/CAMK1D, TSPAN8, THADA, ADAMTS9, and NOTCH2 loci with Insulin release, Insulin sensitivity, and obesity in a population-based sample of 4,516 glucose-tolerant middle-aged Danes. Diabetes 57: 2534-2540.

CHROMOSOMAL LOCATION

Genetic locus: TSPAN8 (human) mapping to 12q21.1.

SOURCE

TSPAN8 (1E5) is a mouse monoclonal antibody raised against amino acids 110-205 of TSPAN8 of human origin.

PRODUCT

Each vial contains 50 µg IgG_3 lambda light chain in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TSPAN8 (1E5) is recommended for detection of TSPAN8 of human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (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 TSPAN8 siRNA (h): sc-95856, TSPAN8 shRNA Plasmid (h): sc-95856-SH and TSPAN8 shRNA (h) Lentiviral Particles: sc-95856-V.

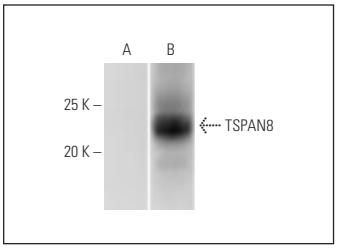
Molecular Weight of TSPAN8: 27 kDa.

Positive Controls: TSPAN8 transfected 293T whole cell lysate.

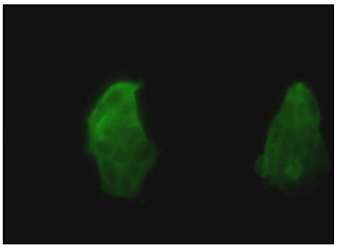
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-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-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGλ BP-HRP: sc-516132 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



TSPAN8 (1E5): sc-293317. Western blot analysis of TSPAN8 expression in non-transfected (**A**) and TSPAN8 transfected (**B**) 293T whole cell lysates.



TSPAN8 (1E5): sc-293317. Immunofluorescence staining of methanol-fixed cells showing membrane localization.

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.