SANTA CRUZ BIOTECHNOLOGY, INC.

TSGA10 (S-14): sc-169697

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TSGA10 (testis specific, 10), also known as CT79 or CEP4L, is a 698 amino acid cytoplasmic and nuclear protein that localizes to the sperm tail as a fibrous sheath protein. Belonging to the CEP135/TSGA10 family, TSGA10 may play a role in the development of the sperm tail fibrous sheath, a major sperm tail structure, as well as active cell division, differentiation and migration of cells. TSGA10 accumulates in the midpiece of spermatozoa, where it co-localizes with HIF-1α. TSGA10 is expressed in cutaneous lymphoma, various tumour cell lines, testis, fetus, peripheral blood mononuclear cells, skin, isolated lymphocytes, keratinocytes, fibroblasts and acute leukemias, making it a candidate for immunotherapy and for detection of minimal residual disease (MRD), a small number of leukaemic cells that remain in a patient during treatment, or after treatment when the patient is in remission.

REFERENCES

1. Modarressi, M.H., et al. 2001. Identification and characterisation of a novel gene, TSGA10, expressed in testis. Gene 262: 249-255.
2. Modarressi, M.H., et al. 2004. TSGA10 encodes a 65 kilodalton protein that is processed to the 27 kilodalton fibrous sheath protein. Biol. Reprod. 70: 608-615.
3. Tanaka, R., et al. 2004. Over-expression of the testis-specific gene TSGA10 in cancers and its immunogenicity. Microbiol. Immunol. 48: 339-345.
4. Theinert, S.M., et al. 2005. Identification of the testis-specific protein 10 (TSGA10) as serologically defined tumour-associated antigen in primary cutaneous T cell lymphoma. Br. J. Dermatol. 153: 639-641.
5. Behnam, B., et al. 2006. Expression of TSGA10 sperm tail protein in embryogenesis and neural development: from cilium to cell division. Biochem. Biophys. Res. Commun. 344: 1102-1110.
6. Hägele, S., et al. 2006. TSGA10 prevents nuclear localization of the hypoxia-inducible factor (HIF)-1α. FEBS Lett. 580: 3731-3738.
7. Mobasheri, M.B., et al. 2006. Expression of the testis-specific gene, TSGA10, in Iranian patients with acute lymphoblastic leukemia (ALL). Leuk. Res. 30: 883-889.
8. Mobasheri, M.B., et al. 2007. Expression of two testis-specific genes, TSGA10 and SYCP3, in different cancers regarding to their pathological features. Cancer Detect. Prev. 31: 296-302.
9. Reimand, K., et al. 2008. Testis-expressed protein TSGA10 an auto-antigen in autoimmune polyendocrine syndrome type I. Int. Immunol. 20: 39-44.

CHROMOSOMAL LOCATION

Genetic locus: TSGA10 (human) mapping to 2q11.2; Tsga10 (mouse) mapping to 1 B.

STORAGE

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

SOURCE

TSGA10 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TSGA10 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169697 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TSGA10 (S-14) is recommended for detection of TSGA10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other TSGA family members .

Suitable for use as control antibody for TSGA10 siRNA (h): sc-94720, TSGA10 siRNA (m): sc-154716, TSGA10 shRNA Plasmid (h): sc-94720-SH, TSGA10 shRNA Plasmid (m): sc-154716-SH, TSGA10 shRNA (h) Lentiviral Particles: sc-94720-V and TSGA10 shRNA (m) Lentiviral Particles: sc-154716-V.

Molecular Weight of precursor TSGA10: 65 kDa.

Molecular Weight of mature TSGA10: 27 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.