

KTELC1 (N-14): sc-99850

BACKGROUND

KTELC1, also known as CAP10-like, is a KTEL motif-containing protein that belongs to the CAP10 family. The KTEL motif at the C-terminus of KTELC1 is an endoplasmic reticulum (ER) retention signal which localizes the KTELC1 protein to the lumen of the ER. KTELC1 is thought to promote cell proliferation and is also believed to be involved with hepatic functions. The *Drosophila* protein rumi, a CAP10 protein and likely similar in function to KTELC1, uses glucosylation to act as a Notch signaling regulator. Expressed in varying degrees in most adult tissue, KTELC1 is especially abundant in the liver. KTELC1 is not expressed in detectable levels in colon, thymus or small intestine. Human KTELC1 shares 94% and 91% sequence similarity with its bovine and mouse homologs, respectively.

REFERENCES

- Gu, J., Zhang, Q.H., Huang, Q.H., Ren, S.X., Wu, X.Y., Ye, M., Huang, C.H., Fu, G., Zhou, J., Niu, C., Han, Z.G., Chen, S.J. and Chen, Z. 2000. Gene expression in CD³⁴⁺ cells from normal bone marrow and leukemic origins. *Hematol. J.* 1: 206-217.
- Steffen, B., Müller-Tidow, C., Schwäble, J., Berdel, W.E. and Serve, H. 2005. The molecular pathogenesis of acute myeloid leukemia. *Crit. Rev. Oncol. Hematol.* 56: 195-221.
- Teng, Y., Liu, Q., Ma, J., Liu, F., Han, Z., Wang, Y. and Wang, W. 2006. Cloning, expression and characterization of a novel human CAP10-like gene hKTELC1 from CD³⁴⁺ stem/progenitor cells. *Gene* 371: 7-15.
- Raykhel, I., Alanen, H., Salo, K., Jurvansuu, J., Nguyen, V.D., Latva-Ranta, M. and Ruddock, L. 2007. A molecular specificity code for the three mammalian KDEL receptors. *J. Cell Biol.* 179: 1193-1204.
- Acar, M., Jafar-Nejad, H., Takeuchi, H., Rajan, A., Ibrani, D., Rana, N.A., Pan, H., Haltiwanger, R.S. and Bellen, H.J. 2008. Rumi is a CAP10 domain glycosyltransferase that modifies Notch and is required for Notch signaling. *Cell* 132: 247-258.
- Simcox, A.A., Austin, C.L., Jacobsen, T.L. and Jafar-Nejad, H. 2008. *Drosophila* embryonic "fibroblasts": Extending mutant analysis *in vitro*. *Fly* 2: 306-309.

CHROMOSOMAL LOCATION

Genetic locus: KTELC1 (human) mapping to 3q13.33; Ktelc1 (mouse) mapping to 16 B4.

SOURCE

KTELC1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KTELC1 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-99850 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KTELC1 (N-14) is recommended for detection of KTELC1 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).

KTELC1 (N-14) is also recommended for detection of KTELC1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for KTELC1 siRNA (h): sc-78497, KTELC1 shRNA Plasmid (h): sc-78497-SH and KTELC1 shRNA (h) Lentiviral Particles: sc-78497-V.

Molecular Weight of KTELC1: 46 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.

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 or our catalog for detailed protocols and support products.