

TET1 (C-13): sc-163443

BACKGROUND

TET1 (tet oncogene 1), also known as LCX or CXXC6, is a 2,136 amino acid protein that localizes to the nucleus and contains one CXXC-type zinc finger. Expressed in adult ovary, thymus and skeletal muscle and also present in fetal lung, heart and brain, TET1 is thought to play a role in the development of fetal organs and may also be involvement in the pathogenesis and metastasis of acute myeloid leukemia (AML). The gene encoding TET1 maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

- Rowley, J.D. 1998. The critical role of chromosome translocations in human leukemias. *Annu. Rev. Genet.* 32: 495-519.
- Aventín, A., et al. 1999. Involvement of MLL gene in a t(10;11)(q22;q23) and a t(8;11)(q24;q23) identified by fluorescence *in situ* hybridization. *Cancer Genet. Cytogenet.* 108: 48-52.
- Ono, R., et al. 2002. LCX, leukemia-associated protein with a CXXC domain, is fused to MLL in acute myeloid leukemia with trilineage dysplasia having t(10;11)(q22;q23). *Cancer Res.* 62: 4075-4080.
- Lorsbach, R.B., et al. 2003. TET1, a member of a novel protein family, is fused to MLL in acute myeloid leukemia containing the t(10;11)(q22;q23). *Leukemia* 17: 637-641.
- Online Mendelian Inheritance in Man, OMIM[™]. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 607790. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: TET1 (human) mapping to 10q21.3; Tet1 (mouse) mapping to 10 B4.

SOURCE

TET1 (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TET1 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-163443 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

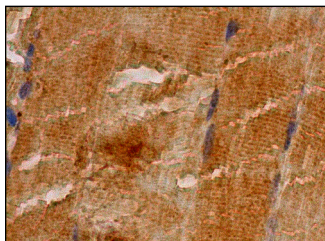
TET1 (C-13) is recommended for detection of TET1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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); non cross-reactive with TET2 or TET3.

TET1 (C-13) is also recommended for detection of TET1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for TET1 siRNA (h): sc-90457, TET1 siRNA (m): sc-154204, TET1 shRNA Plasmid (h): sc-90457-SH, TET1 shRNA Plasmid (m): sc-154204-SH, TET1 shRNA (h) Lentiviral Particles: sc-90457-V and TET1 shRNA (m) Lentiviral Particles: sc-154204-V.

Molecular Weight of TET1: 235 kDa.

DATA



TET1 (C-13): sc-163443. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

- Wei, T., et al. 2015. An HDAC2-TET1 switch at distinct chromatin regions significantly promotes the maturation of pre-iPS to iPS cells. *Nucleic Acids Res.* 43: 5409-5422.

PROTOCOLS

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



Try **TET1 (4F4): sc-293186**, our highly recommended monoclonal alternative to TET1 (C-13).