

TET3 (T-13): sc-139186

BACKGROUND

TET3 (tet oncogene family member 3) is a 1,660 amino acid protein that belongs to the TET family and is expressed in both fetal and adult brain, as well as in muscle, colon and adrenal gland tissue. Existing as multiple alternatively spliced isoforms, TET3 may play a role in myeloid malignancies and overall tumor formation and metastasis. The gene encoding TET3 maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome. Harlequin ichthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene, while the lipid metabolic disorder sitosterolemia is associated with defects in the ABCG5 and ABCG8 genes. Additionally, an extremely rare recessive genetic disorder, Alström syndrome, is caused by mutations in the ALMS1 gene, which maps to chromosome 2.

REFERENCES

1. Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. *Proc. Natl. Acad. Sci. USA* 88: 9051-9055.
2. Thomas, A.C., et al. 2006. ABCA12 is the major harlequin ichthyosis gene. *J. Invest. Dermatol.* 126: 2408-2413.
3. Akiyama, M., et al. 2007. Compound heterozygous ABCA12 mutations including a novel nonsense mutation underlie harlequin ichthyosis. *Dermatology* 215: 155-159.
4. Marshall, J.D., et al. 2007. Alström syndrome. *Eur. J. Hum. Genet.* 15: 1193-1202.
5. Marshall, J.D., et al. 2007. Spectrum of ALMS1 variants and evaluation of genotype-phenotype correlations in Alström syndrome. *Hum. Mutat.* 28: 1114-1123.
6. Abdel-Wahab, O., et al. 2009. Genetic characterization of TET1, TET2, and TET3 alterations in myeloid malignancies. *Blood* 114: 144-147.

CHROMOSOMAL LOCATION

Genetic locus: TET3 (human) mapping to 2p13.1; Tet3 (mouse) mapping to 6 C3.

SOURCE

TET3 (T-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of TET3 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-139186 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.

APPLICATIONS

TET3 (T-13) is recommended for detection of TET3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with TET1 or TET2.

TET3 (T-13) is also recommended for detection of TET3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TET3 siRNA (h): sc-94636, TET3 siRNA (m): sc-154206, TET3 shRNA Plasmid (h): sc-94636-SH, TET3 shRNA Plasmid (m): sc-154206-SH, TET3 shRNA (h) Lentiviral Particles: sc-94636-V and TET3 shRNA (m) Lentiviral Particles: sc-154206-V.

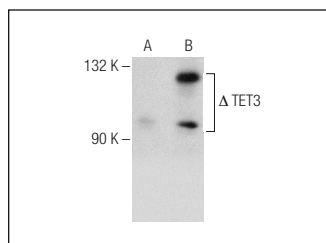
Molecular Weight of TET3: 179 kDa.

Positive Controls: TET3 (h): 293T Lysate: sc-373361, HCT-116 whole cell lysate: sc-364175 or human adrenal gland extract: sc-363761.

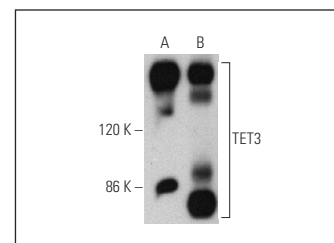
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TET3 (T-13): sc-139186. Western blot analysis of TET3 expression in non-transfected: sc-117752 (A) and truncated human TET3 transfected: sc-373361 (B) 293T whole cell lysates.



TET3 (T-13): sc-139186. Western blot analysis of TET3 expression in HCT-116 whole cell lysate (A) and human adrenal gland (B) tissue extract.

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.