

# TET3 (D-7): sc-518126

## 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.

## SOURCE

TET3 (D-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 80-99 of TET3 of human origin.

## PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TET3 (D-7) is available conjugated to agarose (sc-518126 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518126 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518126 PE), fluorescein (sc-518126 FITC), Alexa Fluor® 488 (sc-518126 AF488), Alexa Fluor® 546 (sc-518126 AF546), Alexa Fluor® 594 (sc-518126 AF594) or Alexa Fluor® 647 (sc-518126 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518126 AF680) or Alexa Fluor® 790 (sc-518126 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

TET3 (D-7) is recommended for detection of TET3 of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

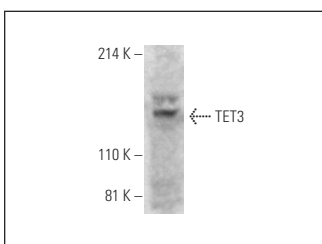
Molecular Weight of TET3: 179 kDa.

Positive Controls: HCT-116 whole cell lysate: sc-364175.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-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 L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



TET3 (D-7): sc-518126. Western blot analysis of TET3 expression in HCT-116 whole cell lysate. Detection reagent used: m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM.

## SELECT PRODUCT CITATIONS

1. Li, Y., et al. 2021. miR-93-5p knockdown repressed hepatocellular carcinoma progression via increasing ERBB4 and TET3-dependent DNA demethylation. *Autoimmunity* 54: 547-560.

## 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.