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TET1 (vPair™) Antibodies

Cat#: R1084-vp

Lot#: Refer to vial

Predicted M.W.: 219 kDa (m), 235 kDa (h)

Application: WB, IP (R1084-4)

Quantity: 50 ul TET1 (N1) (R1084-4) Rabbit Polyclonal Antibody

Uniprot ID: Q3URK3

& 50 ul TET1 (C2) (R1084-2) Rabbit Polyclonal Antibody

Uniprot ID: Q8NFU7

Product Introduction:

vPair™ antibodies represent a pair of fully characterized antibodies that recognize two different regions of a target protein. The product is developed by Abiocode to address whether the signal observed truly represents the protein of interest, an often encountered issue in antibody-based assays. The use of a pair of fully characterized vPair™ antibodies in the same assay can validate signal specificity since vPair™ antibodies recognize two independent epitopes of the same protein. Different sets of vPair™ antibodies are developed at Abiocode to work with specific applications, including antibody arrays, Western blot, IP-Western, CHIP, IHC, and FACS.

Background:

TET1 is a methylcytosine dioxygenase that catalyzes the conversion of the modified genomic base 5-methylcytosine (5mC) into 5-hydroxymethylcytosine (5hmC). Methylation at the C5 position of cytosine bases is an epigenetic modification of the mammalian genome which plays an important role in transcriptional regulation. TET1 might initiate a process leading to cytosine demethylation through deamination into 5-hydroxymethyluracil (5hmU) and subsequent replacement by unmethylated cytosine by the base excision repair system. TET1 preferentially binds to CpG-rich sequences at promoters of both transcriptionally active and polycomb-repressed genes. By controlling the levels of 5mC and 5hmC at gene promoters, it may regulate the gene silencing induced by cytosine methylation. It has been shown that TET1 plays an important role in embryonic stem cells maintenance and regulating the balance between pluripotency and lineage commitment.

Other Names:

Methylcytosine dioxygenase TET1, CXXC-type zinc finger protein 6, Leukemia-associated protein with a CXXC domain, Ten-eleven translocation 1 gene protein, CXXC6, KIAA1676, LCX

Source and Purity:

Rabbit polyclonal antibodies were produced by immunizing animals with GST-fusion proteins containing either the N-terminal region of mouse TET1 [TET1 (N1) (R1084-4)], which is provided as whole antiserum; or the C-terminal region of human TET1 [TET1 (C2) (R1084-2)], which is provided as affinity-purified antibodies using immunogen.

Storage Buffer and Condition:

TET1 (N1) (R1084-4) is supplied as whole rabbit serum containing 30% Glycerol and 0.01% NaN₃. TET1 (C2) (R1084-2) is supplied in 1 x PBS (pH 7.4), 100 ug/ml BSA, 40% Glycerol, 0.01% NaN₃. Store at -20 °C. Stable for 6 months from date of receipt.

Species Specificity:

Human, Mouse

Tested Applications:

WB: 1:500-1:3,000 (detect endogenous protein*)
 IP: 1:50 -1:100 (R1084-4)

*: The apparent protein size on WB may be different from the calculated M.W. due to modifications.

Product Data:

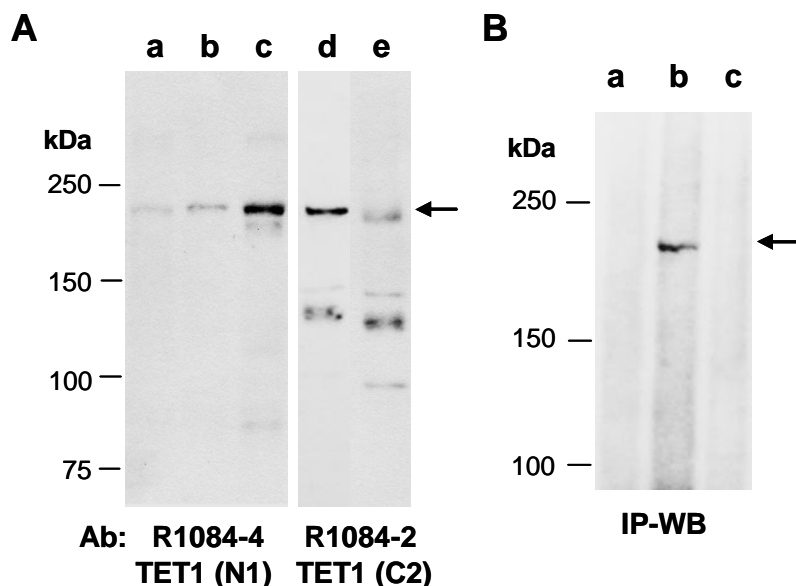


Fig 1. (A) Western blot of total cell extracts from a. human iPS; b. human Jurkat; c and d. mouse thymus; e. mouse fetal brain, using 2 independent Abs against 2 distinct regions of human TET1 as indicated at RT for 2 h. **(B)** IP-Western. Total cell extracts from mouse thymus were immunoprecipitated with a. IgG, b. anti-TET1 (R1084-4), c. anti-TET3 (R1092-1); followed by WB with monoclonal anti-TET1 (M1084-1) at RT for 2 h.