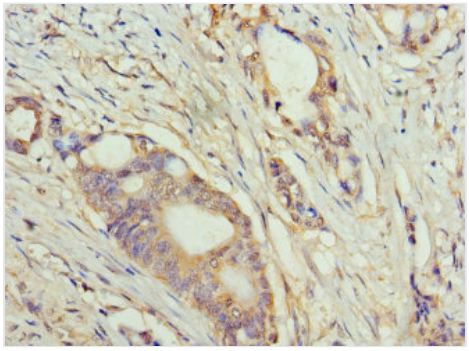
TET1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	TET1, Polyclonal Antibody
Full Product Name	TET1 Antibody
Product Gene Name	anti-TET1 antibody
Product Synonym Names	Methylcytosine dioxygenase TET1; CXXC-type zinc finger protein 6; Leukemia-associated protein with a CXXC domain; Ten-eleven translocation 1 gene prot; TET1; CXXC6; KIAA1676; LCX
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid
Purity/Purification	>95%, Protein G purified
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C or -80 degree C. Avoid repeated freeze.
Matching Pairs	Unconjugated Antibody: TET1 (MBS7046364) FITC Conjugated Antibody: TET1 (MBS7044123)
Matching Pairs	Unconjugated Antibody: TET1 (MBS7046364) Biotin Conjugated Antibody: TET1 (MBS7044535)
Matching Pairs	Unconjugated Antibody: TET1 (MBS7046364) HRP Conjugated Antibody: TET1 (MBS7044628)
Molecular Weight	235,309 Da
OMIM	607790
3D Structure	ModBase 3D Structure for Q8NFU7
Species	Human
Immunogen	Recombinant human Methylcytosine dioxygenase TET1 protein
Conjugate	Non-conjugated
Buffer	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, PH 7.4
Santa Cruz Alternative	Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-163443 / sc-163446
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-TET1 antibody	ELISA (EIA), Immunohistochemistry (IHC)

Related Product Information for anti-TET1 antibody	Dioxygenase that catalyzes the conversion of the modified genomic base 5-methylcytosine (5mC) into 5-hydroxymethylcytosine (5hmC) and plays a key role in active DNA demethylation. Also mediates subsequent conversion of 5hmC into 5-formylcytosine (5fC), and conversion of 5fC to 5-carboxylcytosine (5caC). Conversion of 5mC into 5hmC, 5fC and 5caC probably constitutes the first step in cytosine demethylation. Methylation at the C5 position of cytosine bases is an epigenetic modification of the mammalian genome which plays an important role in transcriptional regulation. In addition to its role in DNA demethylation, plays a more general role in chromatin regulation. Preferentially binds to CpG-rich sequences at promoters of both transcriptionally active and Polycomb-repressed genes. Involved in the recruitment of the O-GlcNAc transferase OGT to CpG-rich transcription start sites of active genes, thereby promoting histone H2B GlcNAcylation by OGT. Also involved in transcription repression of a subset of genes through recruitment of transcriptional repressors to promoters. Involved in the balance between pluripotency and lineage commitment of cells it plays a role in embryonic stem cells maintenance and inner cell mass cell specification. Plays an important role in the tumorigenicity of glioblastoma cells. TET1-mediated production of 5hmC acts as a recruitment signal for the CHTOP-methylosome complex to selective sites on the chromosome, where it methylates H4R3 and activates the transcription of genes involved in glioblastomagenesis (PubMed:25284789).
Other Notes	Small volumes of anti-TET1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for TET1 purchase	MBS7046364 is an antibody targeting TET1. Also known as TET1 Antibody. Reactive in Human. Host: Rabbit.



Immunohistochemistry (IHC) of anti-TET1 antibody
Immunohistochemistry of paraffin-embedded MBS7046364 using human colon cancer at dilution 1:100

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TET1. It may not necessarily be applicable to this product.

NCBI GI #	156139122
NCBI GeneID	80312
NCBI Accession #	NP_085128.2
UniProt Primary Accession #	Q8NFU7
UniProt Secondary Accession #	Q5VUP7; Q7Z6B6; Q8TCR1; Q9C0I7
UniProt Related Accession #	Q8NFU7
GenBank Nucleotide #	NM_030625.2
NCBI Official Full Name	methylcytosine dioxygenase TET1
NCBI Official Synonym Full Names	tet methylcytosine dioxygenase 1
NCBI Official Symbol	TET1
NCBI Official Synonym Symbols	LCX; CXXC6; MLL-TET1; TET1-MLL; bA119F7.1
UniProt Protein Name	Methylcytosine dioxygenase TET1

UniProt Synonym Protein Names	CXXC-type zinc finger protein 6; Leukemia-associated protein with a CXXC domain; Ten-eleven translocation 1 gene protein
Protein Family	Methylcytosine dioxygenase
UniProt Gene Name	TET1
UniProt Synonym Gene Names	CXXC6; KIAA1676; LCX
UniProt Entry Name	TET1_HUMAN
NCBI Protein Information	methylcytosine dioxygenase TET1
NCBI Summary for TET1	DNA methylation is an epigenetic mechanism that is important for controlling gene expression. The protein encoded by this gene is a demethylase that belongs to the TET (ten-eleven translocation) family. Members of the TET protein family play a role in the DNA methylation process and gene activation. [provided by RefSeq, Sep 2015]
UniProt Comments for TET1	TET1: Dioxygenase that catalyzes the conversion of the modified genomic base 5-methylcytosine (5mC) into 5-hydroxymethylcytosine (5hmC). 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. Methylation at the C5 position of cytosine bases is an epigenetic modification of the mammalian genome which plays an important role in transcriptional regulation. 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 expression silencing induced by cytosine methylation. May have a dual function by also repressing the expression of a subset of genes through recruitment of transcriptional repressors to promoters. Involved in the balance between pluripotency and lineage commitment of cells it plays a role in embryonic stem cells maintenance and inner cell mass cell specification. A chromosomal aberration involving TET1 may be a cause of acute leukemias. Translocation t(10;11)(q22;q23) with MLL. This is a rare chromosomal translocation 5' MLL-TET1 3'. Belongs to the TET family. Protein type: DNA-binding; EC 1.14.11.n2; Oxidoreductase Chromosomal Location of Human Ortholog: 10q21 Cellular Component: nucleus Molecular Function: iron ion binding; structure-specific DNA binding Biological Process: inner cell mass cell differentiation; positive regulation of cell proliferation; positive regulation of histone methylation; positive regulation of transcription from RNA polymerase II promoter; protein amino acid O-linked glycosylation; stem cell maintenance
Research Articles on TET1	**1.** Noncovalent binding of ADP-ribose polymers with TET1 catalytic domain decreases TET1 hydroxylase activity while the covalent PARylation stimulates TET1 enzyme. In addition, TET1 activates PARP-1/ARTD1 independently of DNA breaks.
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