

TET3 Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS15652**Specification**

TET3 Antibody (C-Terminus) - Product Information

Application	IHC, IF, WB
Primary Accession	O43151
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	179kDa KDa

TET3 Antibody (C-Terminus) - Additional Information**Gene ID** 200424**Other Names**

Methylcytosine dioxygenase TET3, 1.14.11.n2, TET3, KIAA0401

Target/Specificity

Human TET3. At least three isoforms of TET3 are known to exist. TET3 antibody is predicted to not cross react with other TET proteins.

Reconstitution & Storage

Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions

TET3 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

TET3 Antibody (C-Terminus) - Protein Information**Name** TET3 ([HGNC:28313](#))**Synonyms** KIAA0401**Function**

Dioxygenase that catalyzes the conversion of the modified genomic base 5-methylcytosine (5mC) into 5-hydroxymethylcytosine (5hmC) and plays a key role in epigenetic chromatin reprogramming in the zygote following fertilization (PubMed: [31928709](http://www.uniprot.org/citations/31928709)). 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 (By similarity). Selectively binds to the promoter region of target genes and contributes to regulate the expression of numerous developmental genes (PubMed: [23217707](http://www.uniprot.org/citations/23217707)). In zygotes, DNA demethylation occurs selectively in the paternal pronucleus before the first cell division, while

the adjacent maternal pronucleus and certain paternally-imprinted loci are protected from this process. Participates in DNA demethylation in the paternal pronucleus by mediating conversion of 5mC into 5hmC, 5fC and 5caC. Does not mediate DNA demethylation of maternal pronucleus because of the presence of DPPA3/PGC7 on maternal chromatin that prevents TET3-binding to chromatin (By similarity). In addition to its role in DNA demethylation, also 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 (PubMed:23353889). Binds preferentially to DNA containing cytidine-phosphate-guanosine (CpG) dinucleotides over CpH (H=A, T, and C), hemimethylated-CpG and hemimethylated-hydroxymethyl- CpG (PubMed:29276034).

Cellular Location

Nucleus {ECO:0000250|UniProtKB:Q8BG87}. Cytoplasm {ECO:0000250|UniProtKB:Q8BG87}. Chromosome {ECO:0000250|UniProtKB:Q8BG87}. Note=At the zygotic stage, localizes in the male pronucleus, while it localizes to the cytoplasm at other preimplantation stages. Binds to the promoter of target genes, close to the transcription start site. {ECO:0000250|UniProtKB:Q8BG87}

Tissue Location

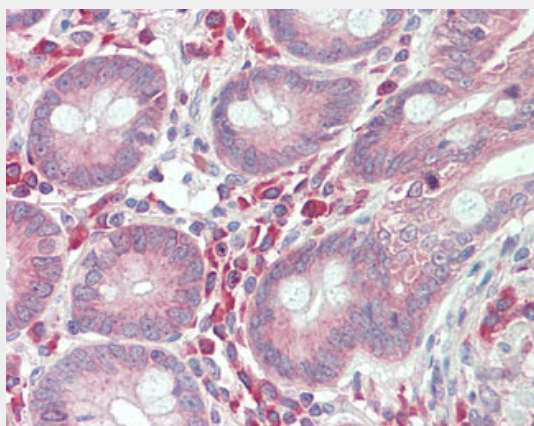
Expressed in colon, muscle, adrenal gland and peripheral blood lymphocytes.

TET3 Antibody (C-Terminus) - Protocols

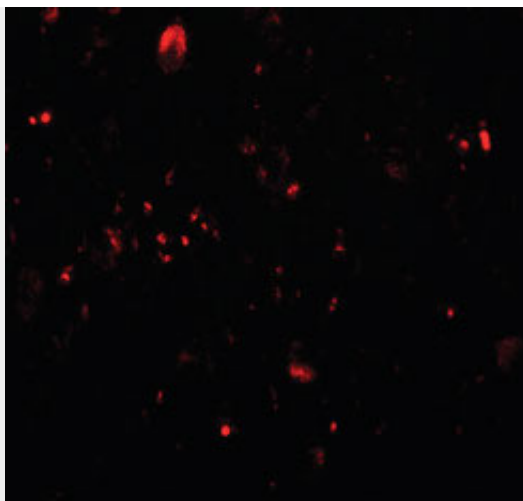
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

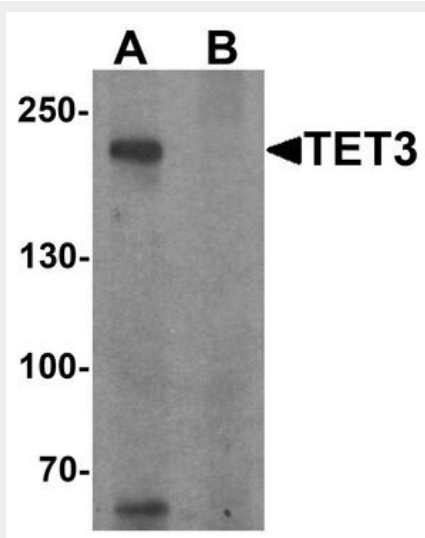
TET3 Antibody (C-Terminus) - Images



Anti-TET3 antibody IHC staining of human small intestine.



Immunofluorescence of TET3 in human brain tissue with TET3 antibody at 20 ug/ml.



Western blot analysis of TET3 in SK-N-SH cell lysate with TET3 antibody at 1 ug/ml in (A) the...

TET3 Antibody (C-Terminus) - Background

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TET3 Antibody (C-Terminus) - References

Hillier L.W., et al. Nature 434:724-731(2005).

Kim N.-S.,et al.Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
Ishikawa K.,et al.DNA Res. 4:307-313(1997).
Lorsbach R.B.,et al.Leukemia 17:637-641(2003).
Deplus R.,et al.EMBO J. 32:645-655(2013).