

Anti-TET1 antibody - C-terminal ab191698

★★★★★ [2 Abreviews](#) [38 References](#) [11 Images](#)

Overview

Product name	Anti-TET1 antibody - C-terminal
Description	Rabbit polyclonal to TET1 - C-terminal
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human TET1 (C terminal). The exact sequence is proprietary. 18 amino acid peptide. The immunogen is located with amino acids 2030 - 2080. Database link: Q8NFU7
Positive control	Western blot: Human, mouse and rat testis; Human bladder; Mouse and rat kidney; Mouse and rat thymus; Mouse stomach; K562, A431 whole cell lysates. IHC-P: Human and mouse testis, mouse kidney and rat liver tissues. ICC/IF: HeLa and EL4 cell lines.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.02% Sodium azide Constituent: PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab191698 in the following tested applications.

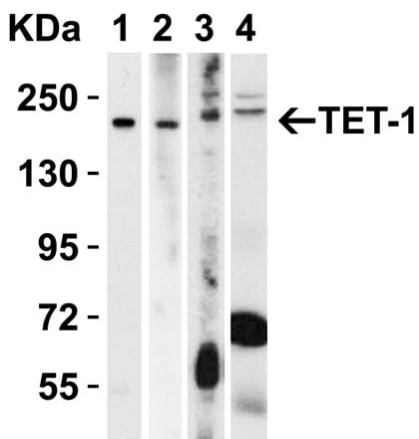
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (2)	Use a concentration of 1 µg/ml. Predicted molecular weight: 235 kDa. Recommend for human and mouse and rat. Please see image legend for details of the Western blot protocol. Blocking in milk and incubation of ab191698 for 1 hour at room temperature.
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Recommend for human and mouse. Please see image legends for more protocol details.
ICC/IF		Use a concentration of 20 µg/ml. Recommend for human and mouse. Please see image legends for more protocol details.

Target

Function	Dioxygenase that catalyzes the conversion of methylcytosine (5mC) to 5-hydroxymethylcytosine (hmC). Plays a role in embryonic stem (ES) cell maintenance and inner cell mass (ICM) cell specification, possibly by participating in DNA demethylation. Specifically binds 5mC, a minor base in mammalian DNA found in repetitive DNA elements that is crucial for retrotransposon silencing and mammalian development. 5mC is present in ES cells and is enriched in the brain, especially in Purkinje neurons. The clear function of hmC is still unclear but it could constitute an intermediate component in cytosine demethylation. A role of hmC in DNA demethylation is supported by TET1 function in ES cell maintenance, which is required to prevent NANOG hypermethylation and maintain NANOG expression in ES cells.
Tissue specificity	Expressed in fetal heart, lung and brain, and in adult skeletal muscle, thymus and ovary. Not detected in adult heart, lung or brain.
Involvement in disease	Note=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'.
Sequence similarities	Belongs to the TET family. Contains 1 CXXC-type zinc finger.
Cellular localization	Nucleus.

Images



Western blot - Anti-TET1 antibody - C-terminal (ab191698)

All lanes : Anti-TET1 antibody - C-terminal (ab191698) at 1 µg/ml

Lane 1 : Mouse testis

Lane 2 : Rat testis

Lane 3 : Human testis

Lane 4 : Human bladder

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat anti-rabbit IgG HRP conjugate at 1/10000 dilution

Developed using the ECL technique.

Predicted band size: 235 kDa

Additional bands at: 55-72 kDa (possible non-specific binding)

Exposure time: 1 minute

8% SDS gel

Running condition: 130V, 1.5 hours.

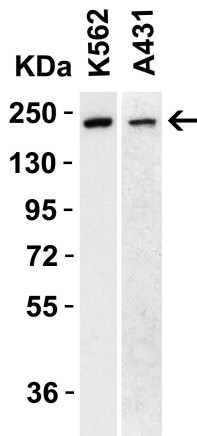
Transfer condition: Wet, 250mA, 2 hrs (Nitrocellulose membrane)

Blocking condition: 5% non-fat milk in TBS at 4 overnight.

Primary antibody incubation: room temperature for 1 hour in 5% NFDN/TBST.

Secondary antibody incubation: room temperature for 1 hour.

Washing condition: 5 mL TBST, 4 x 5 minutes.



Western blot - Anti-TET1 antibody - C-terminal (ab191698)

All lanes : Anti-TET1 antibody - C-terminal (ab191698) at 1 µg/ml

Lane 1 : K562 (Human chronic myelogenous leukemia lymphoblast cell line) whole cell lysate

Lane 2 : A431 (Human epidermoid carcinoma cell line) whole cell lysate

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : abbit IgG antibody (HRP) at 1/10000 dilution

Predicted band size: 235 kDa

Observed band size: 235 kDa

Western blot analysis labeling TET1 with ab191698 at 1 µg/mL in 5% NFDm/TBST, followed by secondary antibody, incubated at room temperature for 1hr.

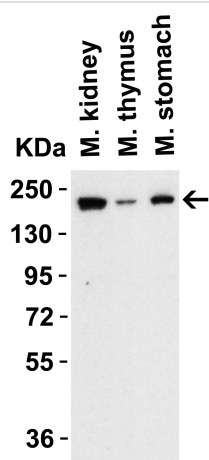
Running condition: 8% gel, 130V for 1.5 hrs.

Transfer condition: Wet, 250mA, 2 hrs (NC membrane).

Blocking condition: 5% non-fat milk in TBS at 4°C overnight.

Washing condition: 5ml TBST, 4 x 5 min.

Exposure system: GE ECL 1 min.



Western blot - Anti-TET1 antibody - C-terminal
(ab191698)

All lanes : Anti-TET1 antibody - C-terminal (ab191698) at 1 µg/ml

Lane 1 : Mouse kidney

Lane 2 : Mouse thymus

Lane 3 : Mouse stomach

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Rabbit IgG antibody (HRP) at 1/10000 dilution

Predicted band size: 235 kDa

Observed band size: 235 kDa

Western blot analysis labeling TET1 with ab191698 at 1 µg/mL in 5% NFDm/TBST, followed by secondary antibody, incubated at room temperature for 1hr.

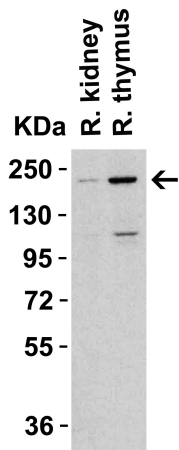
Running condition: 8% gel, 130V for 1.5 hrs.

Transfer condition: Wet, 250mA, 2 hrs (NC membrane).

Blocking condition: 5% non-fat milk in TBS at 4°C overnight.

Washing condition: 5ml TBST, 4 x 5 min.

Exposure system: GE ECL 1 min.



Western blot - Anti-TET1 antibody - C-terminal (ab191698)

All lanes : Anti-TET1 antibody - C-terminal (ab191698) at 1 µg/ml

Lane 1 : Rat kidney

Lane 2 : Rat thymus

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Rabbit IgG antibody (HRP) at 1/10000 dilution

Predicted band size: 235 kDa

Observed band size: 235 kDa

Western blot analysis labeling TET1 with ab191698 at 1 µg/mL in 5% NFDm/TBST, followed by secondary antibody, incubated at room temperature for 1hr.

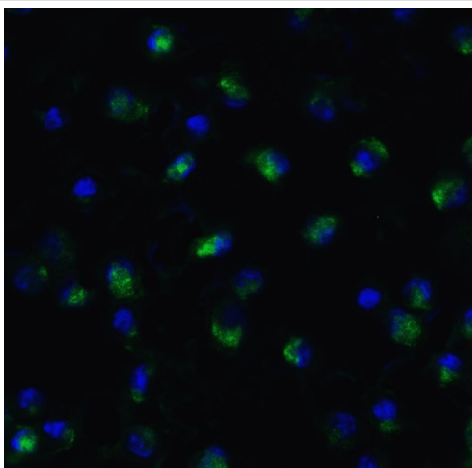
Running condition: 8% gel, 130V for 1.5 hrs.

Transfer condition: Wet, 250mA, 2 hrs (NC membrane).

Blocking condition: 5% non-fat milk in TBS at 4°C overnight.

Washing condition: 5ml TBST, 4 x 5 min.

Exposure system: GE ECL 10 sec.

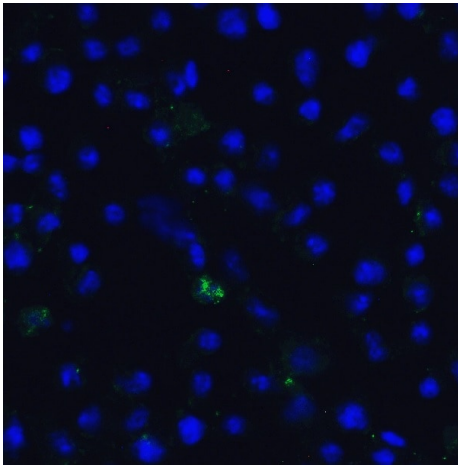


Immunocytochemistry/ Immunofluorescence - Anti-TET1 antibody - C-terminal (ab191698)

Immunofluorescent analysis of 4% paraformaldehyde-fixed (room temperature, 10 minutes), 0.1% Triton X-100 in PBS permeabilized (room temperature, 5 minutes) HeLa cells labeling TET1 with ab191698 at 20 µg/mL (incubation at 4°C overnight), followed by Rabbit IgG antibody (Alexa Fluor 488) secondary antibody at 1/2000 dilution (green) (Incubation at room temperature for 1 hour). Confocal image showing nuclear staining on HeLa cell line. The nuclear counter stain is DAPI (blue).

Blocking condition: 5% BSA, room temperature, 1 hour.

Washing condition: PBS, 3 x 3 minutes.

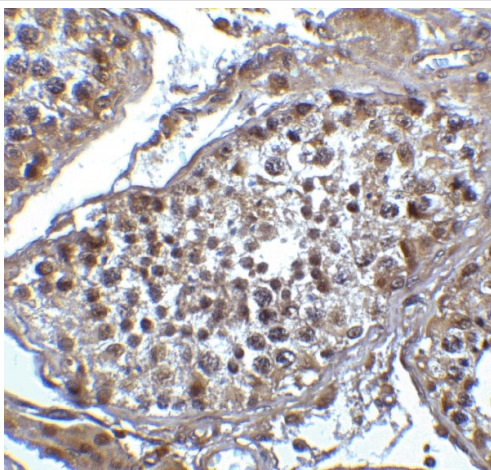


Immunocytochemistry/ Immunofluorescence - Anti-TET1 antibody - C-terminal (ab191698)

Immunofluorescent analysis of 4% paraformaldehyde-fixed (room temperature, 10 minutes), 0.1% Triton X-100 in PBS permeabilized (room temperature, 5 minutes) EL4 cells (mouse T-lymphocyte cell line) labeling TET1 with ab191698 at 20 $\mu\text{g}/\text{mL}$ (incubation at 4°C overnight), followed by Rabbit IgG antibody (Alexa Fluor 488) secondary antibody at 1/2000 dilution (green) (Incubation at room temperature for 1 hour). Confocal image showing nuclear staining on EL4 cell line. The nuclear counter stain is DAPI (blue).

Blocking condition: 5% BSA, room temperature, 1 hour.

Washing condition: PBS, 3 x 3 minutes.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TET1 antibody - C-terminal (ab191698)

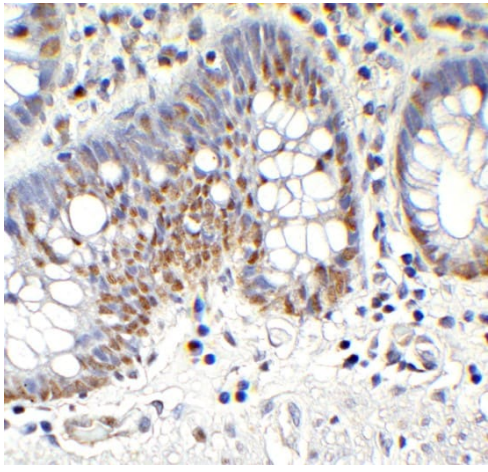
Immunohistochemical analysis of paraffin-embedded human testis tissue labeling TET1 with ab191698 at 1 $\mu\text{g}/\text{mL}$ (4°C overnight), followed by Streptavidin-HRP Kit (Rabbit IgG) (Room temperature, 1 hour). Nuclear staining on human testis is observed. DAB staining.

Antigen Retrieval: Citrate buffer, pH 6.0, microwave, 20 minutes.

Endogenous peroxidase blocking: 3% H_2O_2 , Room temperature, 10 minutes.

Blocking condition: 5% BSA, room temperature, 1 hour.

Washing condition: PBS, 2 X 5 minutes.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TET1 antibody - C-terminal (ab191698)

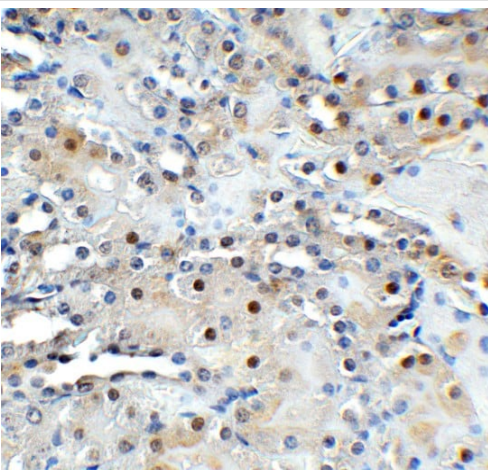
Immunohistochemical analysis of paraffin-embedded human testis tissue labeling TET1 with ab191698 at 1 $\mu\text{g}/\text{mL}$ (4°C overnight), followed by Streptavidin-HRP Kit (Rabbit IgG) (Room temperature, 1 hour). DAB staining.

Antigen Retrieval: Citrate buffer, pH 6.0, microwave, 20 minutes.

Endogenous peroxidase blocking: 3% H_2O_2 , Room temperature, 10 minutes.

Blocking condition: 5% BSA, Room temperature, 1 hour.

Washing condition: PBS, 2 X 5 minutes.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TET1 antibody - C-terminal (ab191698)

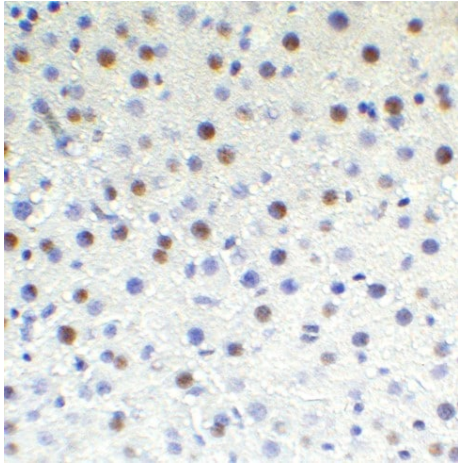
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling TET1 with ab191698 at 1 $\mu\text{g}/\text{mL}$ (4°C overnight), followed by Streptavidin-HRP Kit (Rabbit IgG) (Room temperature, 1 hour). DAB staining.

Antigen Retrieval: Citrate buffer, pH 6.0, microwave, 20 minutes.

Endogenous peroxidase blocking: 3% H_2O_2 , Room temperature, 10 minutes.

Blocking condition: 5% BSA, Room temperature, 1 hour.

Washing condition: PBS, 2 X 5 minutes.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TET1 antibody - C-terminal (ab191698)

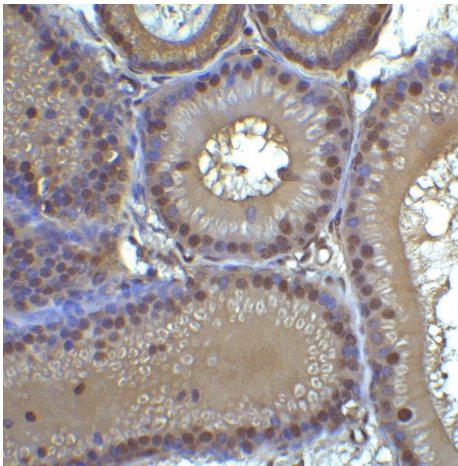
Immunohistochemical analysis of paraffin-embedded rat liver tissue labeling TET1 with ab191698 at 1 $\mu\text{g}/\text{mL}$ (4°C overnight), followed by Streptavidin-HRP Kit (Rabbit IgG) (Room temperature, 1 hour). DAB staining.

Antigen Retrieval: Citrate buffer, pH 6.0, microwave, 20 minutes.

Endogenous peroxidase blocking: 3% H_2O_2 , Room temperature, 10 minutes.

Blocking condition: 5% BSA, Room temperature, 1 hour.

Washing condition: PBS, 2 X 5 minutes.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TET1 antibody - C-terminal (ab191698)

Immunohistochemical analysis of paraffin-embedded mouse testis tissue labeling TET1 with ab191698 at 1 $\mu\text{g}/\text{mL}$ (4°C overnight), followed by Streptavidin-HRP Kit (Rabbit IgG) (Room temperature, 1 hour). Nuclear staining on mouse testis is observed. DAB staining.

Antigen Retrieval: Citrate buffer, pH 6.0, microwave, 20 minutes.

Endogenous peroxidase blocking: 3% H_2O_2 , Room temperature, 10 minutes.

Blocking condition: 5% BSA, room temperature, 1 hour.

Washing condition: PBS, 2 X 5 minutes.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise,

please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors