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TET3 Rabbit pAb

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Catalog # AP56759

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	O43151
Reactivity	Rat, Human, Mouse
Predicted	Pig, Dog, Chicken, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	193705
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TET3
Epitope Specificity	1561-1660/1660
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Note=At the zygotic stage, localizes in the male pronucleus, while it localizes to the cytoplasm at other preimplantation stages.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Members of the ten-eleven translocation (TET) gene family, including TET3, play a role in the DNA methylation process (Langemeijer et al., 2009 [PubMed 19923888]).[supplied by OMIM, Nov 2010]

Additional Information

Gene ID	200424
Other Names	Methylcytosine dioxygenase TET3, 1.14.11.80, TET3 (HGNC:28313)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:200-800,Flow-Cyt=2ug/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

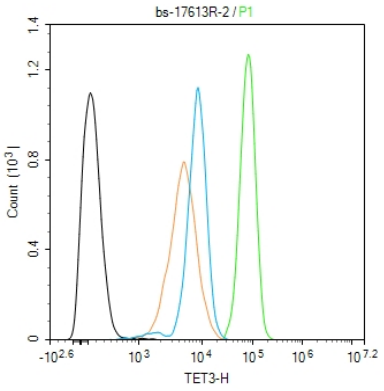
Name	TET3 (HGNC:28313)

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). 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). 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.

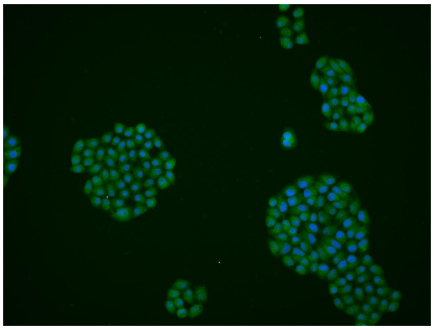
Background

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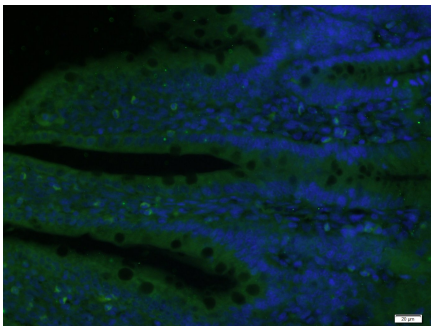
Images



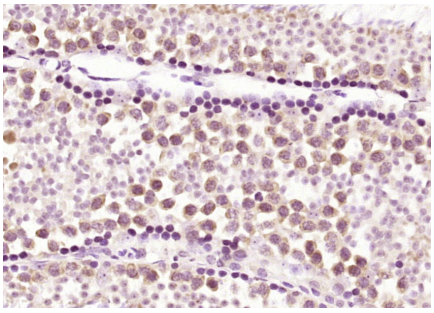
Blank control(black line):MCF-7.
Primary Antibody (green line): Rabbit Anti-TET3 antibody (AP56759)
Dilution:2ug/Test;
Secondary Antibody(white blue line): Goat anti-rabbit IgG-FITC
Dilution: 0.5ug/Test.
Isotype control(orange line): Normal Rabbit IgG
Protocol
The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20℃, The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



MCF-7 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (TET3) polyclonal Antibody, Unconjugated (AP56759) 1:50, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



Paraformaldehyde-fixed, paraffin embedded (Rat colon); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (TET3) Polyclonal Antibody, Unconjugated (AP56759) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Rabbit IgG antibody (AP56759-FITC) for 90 minutes, and DAPI for nuclei staining.



Paraformaldehyde-fixed, paraffin embedded (mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (TET3) Polyclonal Antibody, Unconjugated (AP56759) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.