

Product datasheet for TA382439

Tet3 Rabbit Polyclonal Antibody

Product data:

Product Type: Primary Antibodies

Applications: WB

Reactivity: WB,1:500 - 1:2000 Mouse, Human, Rat

Modifications: Unmodified

Host: Rabbit Isotype: IgG

Clonality: Polyclonal

Immunogen: Recombinant protein of Mouse TET3.

Formulation: Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3.

Concentration: lot specific

Purification: Affinity purification

Conjugation: Unconjugated

Storage: Store at -20°C. Avoid freeze / thaw cycles.

Stability: Shelf life: one year from despatch.

Predicted Protein Size: 194kDa

Gene Name: tet methylcytosine dioxygenase 3

Database Link: Entrez Gene 194388 Mouse

Q8BG87



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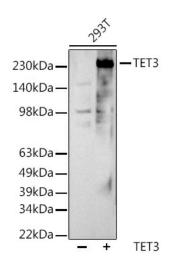


Background:

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. 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. Selectively binds to the promoter region of target genes and contributes to regulate the expression of numerous developmental genes. 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. 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. Binds preferentially to DNA containing cytidine-phosphate-guanosine (CpG dinucleotides over CpH (H=A, T, and C, hemimethylated-CpG and hemimethylated-hydroxymethyl-CpG (By similarity.

Synonyms: hCG_40738

Product images:



Western blot analysis of extracts of 293T cells, using (TA382439) at 1:1000 dilution. |Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. |Lysates/proteins: 25ug per lane. |Blocking buffer: 3% nonfat dry milk in TBST. |Detection: ECL Enhanced Kit. |Exposure time: 90s.