

## Tet1 antibody (mAb)

**Catalog Nos:** 61741, 61941, 61742**RRID:** AB\_2793752**Clone:** 5D6**Isotype:** IgG2a**Application(s):** ChIP-Seq, ICC, IF, IP, WB**Reactivity:** Human, Mouse**Quantities:** 100 µg, 50 µg, 10 µg**Purification:** Protein G Chromatography**Host:** Rat**Concentration:** 1 µg/µl**Molecular Weight:** 215 kDa

**Background:** Tet1 (Ten-Eleven Translocation-1; methylcytosine dioxygenase) is a protein that catalyzes the conversion of the modified genomic base 5-methylcytosine (5mC) into 5-hydroxymethylcytosine (5hmC) which can lead to cytosine demethylation by either further oxidation via Tet proteins to 5-formylcytosine (5fC) and 5-carboxycytosine (5caC) or deamination into 5-hydroxymethyluracil (5hmU) and then 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. Tet1 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.

**Immunogen:** This antibody was raised against a recombinant protein corresponding amino acids 1682-1914 of mouse Tet1.

**Buffer:** Purified IgG in PBS with 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

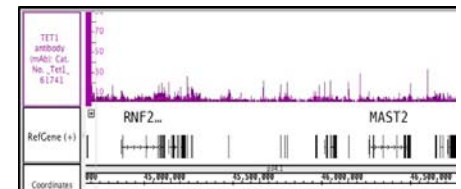
**Application Notes:**

Applications Validated by Active Motif:

ChIP-Seq: 4 µl per ChIP

This antibody is also available as an AbFlex® engineered recombinant antibody. For details on the corresponding AbFlex Recombinant Antibody, see Catalog No. 91171.

**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt. This product is for research use only and is not for use in diagnostic procedures.

**TET1 antibody tested by ChIP-Seq.**

ChIP was performed using TET1 antibody with 30 µg chromatin from human brain tumor cells and 4 µl of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 15 million sequence tags were mapped to identify TET1 binding sites. The image shows binding across a region of chromosome 1.