# Immunotag™ TET1 Antibody

## Antibody Specification

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| Catalog No. | ITA6509 |
| Product Description | Immunotag™ TET1 Antibody |
| Size | 100 µg, 200 µg |
| Conjugation | HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647 |
| IMPORTANT NOTE | This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return. |
| Target Protein | TET1 |
| Clonality | Polyclonal |
| Storage/Stability | -20°C/1 year |
| Application | WB,IP,ELISA |
| Recommended Dilution | WB 1:500-1:2000 IHC 1:50-1:200 |
| Concentration | 1 mg/ml |
| Reactive Species | Human,Mouse,Rat |
| Host Species | Rabbit |
| Immunogen | A synthesized peptide derived from human TET1 |
| Specificity | TET1 Antibody detects endogenous levels of total TET1 |
| Purification | The antiserum was purified by peptide affinity chromatography. |
| Form | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt |
| Gene Name | TET1 |
| Accession No. | Q8NFU7 |
| Alternate Names | bA119F7.1; CXXC 6; CXXC finger 6; CXXC type zinc finger protein 6; CXXC zinc finger 6; CXXC-type zinc finger protein 6; CXXC6; KIAA1676; LCX; Leukemia associated protein with a CXXC domain; Leukemia-associated protein with a CXXC domain; Methylcytosine dioxygenase TET1; Ten eleven translocation 1; Ten eleven translocation 1 gene protein; Ten eleven translocation 1 gene protein homolog; Ten-eleven translocation 1 gene protein; Tet 1; Tet methylcytosine dioxygenase 1; Tet oncogene 1; TET1; TET1_HUMAN; |

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| Description | Dioxygenase that catalyzes the conversion of the modified genomic base 5-methylcytosine (5mC) into 5-hydroxymethylcytosine (5hmC) and plays a key role in active DNA demethylation. 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. Methylation at the C5 position of cytosine bases is an epigenetic modification of the mammalian genome which plays an important role in transcriptional regulation. In addition to its role in DNA demethylation, plays a more general role in chromatin regulation. Preferentially binds to CpG-rich sequences at promoters of both transcriptionally active and Polycomb-repressed genes. 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. Also involved in transcription repression 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. Plays an important role in the tumorigenicity of glioblastoma cells. TET1-mediated production of 5hmC acts as a recruitment signal for the CHTOP-methylosome complex to selective sites on the chromosome, where it methylates H4R3 and activates the transcription of genes involved in glioblastomagenesis (PubMed:25284789). |
| Cell Pathway/ Category | Primary Polyclonal Antibody |
| Protein MW | 235kDa |
| Usage | For Research Use Only! Not for diagnostic or therapeutic procedures. |