

TET2 Antibody
Catalog # ASC11778**Specification**

TET2 Antibody - Product Information

Application
Primary Accession
Other Accession
Reactivity
Host
Clonality
Isotype
Calculated MW

WB
[Q6N021](#)
[NP_001120680](#), [187761317](#)
Human, Mouse
Rabbit
Polyclonal
IgG
Predicted: 220 kDa

Application Notes

Observed: 220 kDa KDa
TET2 antibody can be used for detection of TET2 by Western blot at 1 - 2 µg/ml.

TET2 Antibody - Additional Information

Gene ID

54790

Target/Specificity

TET2; TET2 antibody is human and mouse reactive. At least two isoforms of TET2 are known to exist; this antibody will detect the larger isoforms. This antibody is predicted to not cross-react with TET1 and TET3.

Reconstitution & Storage

TET2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

TET2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TET2 Antibody - Protein Information

Name TET2

Synonyms KIAA1546

Function

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. Has a preference for 5-hydroxymethylcytosine in CpG motifs. 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, 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.

Cellular Location

Nucleus. Chromosome. Note=Localization to chromatin depends upon monoubiquitination at Lys-1299.

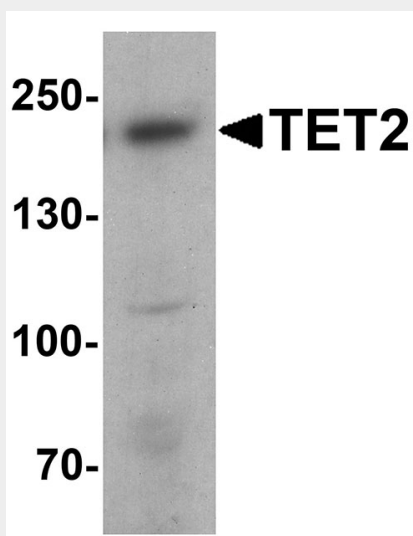
Tissue Location

Broadly expressed. Highly expressed in hematopoietic cells; highest expression observed in granulocytes Expression is reduced in granulocytes from peripheral blood of patients affected by myelodysplastic syndromes.

TET2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TET2 Antibody - Images

Western blot analysis of TET2 in 3T3 cell lysate with TET2 antibody at 1 µg/ml.

TET2 Antibody - Background

TET2, a member of the ten-eleven-translocation (TET) family of genes, is a methylcytosine dioxygenase that catalyzes the conversion of methylcytosine to 5-hydroxymethylcytosine. It is a candidate tumor suppressor gene reported to be mutated in approximately 14% of patients with JAK2V617F-positive myeloproliferative neoplasms (1), and can be mutated in other hematopoietic disorders such as myelodysplastic syndromes, acute myeloid leukemia, and chronic myelomonocytic leukemia (2). Analysis of the TET2 and JAK2 mutations in these neoplasms suggests that mutations in TET2 do not represent a predisposition for acquiring mutations in JAK2.

TET2 Antibody - References

Tefferi A, Levine RL, Lim KH, et al. Frequent TET2 mutations in systemic mastocytosis: clinical, KITD816V and FIPL1-PDGFRA correlates. *Leukemia* 2009; 23:900-4.

Schaub FX, Looser R, Li S, et al. Clonal analysis of TET2 and JAK2 mutations suggests that TET2 can be a late event in the progression of myeloproliferative neoplasms. *Blood* 2011; 115:2003-7.