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TET2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17372a

Product Information

Application	IHC-P, WB, E
Primary Accession	Q6N021
Other Accession	NP_001120680.1, NP_060098.3
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37907
Calculated MW	223811
Antigen Region	528-554

Additional Information

Gene ID	54790
Other Names	Methylcytosine dioxygenase TET2, 11411n2, TET2, KIAA1546
Target/Specificity	This TET2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 528-554 amino acids from the N-terminal region of human TET2.
Dilution	IHC-P~~1:100 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TET2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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.

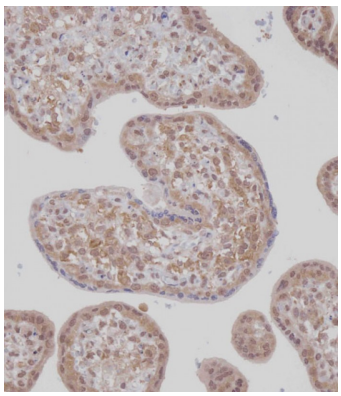
Background

TET2 may catalyze the conversion of methylcytosine (5mC) to 5-hydroxymethylcytosine (hmC) (By similarity). Play an important role in the regulation of myelopoiesis.

References

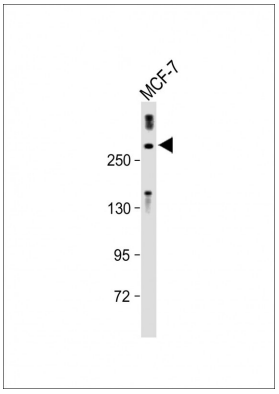
Mallo, M., et al. Haematologica 95(10):1798-1800(2010)
Smith, A.E., et al. Blood (2010) In press :
Tefferi, A., et al. Leukemia 24(7):1302-1309(2010)
Kim, S.T., et al. Prostate (2010) In press :
Rocquain, J., et al. BMC Cancer 10, 401 (2010) :

Images



Immunohistochemical analysis of AP17372a on paraffin-embedded Human placenta tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

Anti-TET2 Antibody (N-term) at 1:2000 dilution + MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 224 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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