



Product datasheet

Anti-Tet2 antibody [CL6873] ab243323

★★★★★ [5 Abreviews](#) [3 References](#) [6 Images](#)

Overview

Product name	Anti-Tet2 antibody [CL6873]
Description	Mouse monoclonal [CL6873] to Tet2
Host species	Mouse
Tested applications	Suitable for: WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human Tet2 aa 900-1000. Database link: Q6N021
	 Run BLAST with  Run BLAST with
Positive control	IHC-P: Human placenta, uterine cervix and tonsil tissues. WB: HL-60 cell lysate. ICC/IF: U-2 OS cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 40% Glycerol, PBS
Purity	Protein A purified
Purification notes	Purified from TCS.
Clonality	Monoclonal
Clone number	CL6873

Isotype

IgG2b

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab243323 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (2)	Use a concentration of 1 µg/ml. Predicted molecular weight: 224 kDa.
IHC-P	★★★★☆ (2)	1/20 - 1/50. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF	★★★★★ (1)	Use a concentration of 2 - 10 µg/ml. Fixation/Permeabilization: PFA/Triton X-100

Target

Function

Catalyzes the conversion of methylcytosine (5mC) to 5-hydroxymethylcytosine (hmC). Plays an important role in myelopoiesis. The clear function of 5-hydroxymethylcytosine (hmC) is still unclear but it may influence chromatin structure and recruit specific factors or may constitute an intermediate component in cytosine demethylation.

Tissue specificity

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.

Involvement in disease

Note=TET2 is frequently mutated in myeloproliferative disorders (MPD). These constitute a heterogeneous group of disorders, also known as myeloproliferative diseases or myeloproliferative neoplasms (MPN), characterized by cellular proliferation of one or more hematologic cell lines in the peripheral blood, distinct from acute leukemia. Included diseases are: essential thrombocythemia, polycythemia vera, primary myelofibrosis (chronic idiopathic myelofibrosis). Bone marrow samples from patients display uniformly low levels of hmC in genomic DNA compared to bone marrow samples from healthy controls as well as hypomethylation relative to controls at the majority of differentially methylated CpG sites. Defects in TET2 are a cause of polycythemia vera (PV) [MIM:263300]. A myeloproliferative disorder characterized by abnormal proliferation of all hematopoietic bone marrow elements, erythroid hyperplasia, an absolute increase in total blood volume, but also by myeloid leukocytosis, thrombocytosis and splenomegaly.

Note=TET2 is frequently mutated in systemic mastocytosis; also known as systemic mast cell disease. A condition with features in common with myeloproliferative diseases. It is a clonal disorder of the mast cell and its precursor cells. The clinical symptoms and signs of systemic mastocytosis are due to accumulation of clonally derived mast cells in different tissues, including bone marrow, skin, the gastrointestinal tract, the liver, and the spleen.

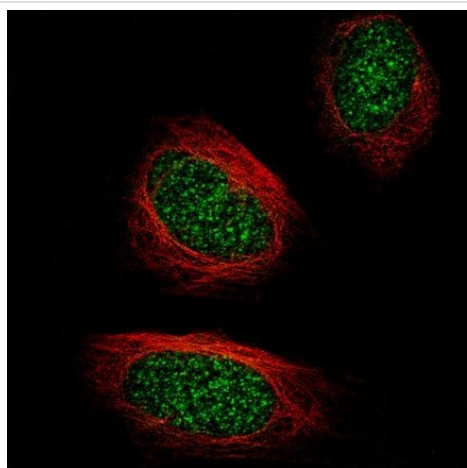
Note=TET2 is frequently mutated in myelodysplastic syndromes, a heterogeneous group of closely related clonal hematopoietic disorders. All are characterized by a hypercellular or hypocellular bone marrow with impaired morphology and maturation, dysplasia of the myeloid, megakaryocytic and/or erythroid lineages, and peripheral blood cytopenias resulting from ineffective blood cell production. Included diseases are: refractory anemia (RA), refractory anemia

with ringed sideroblasts (RARS), refractory anemia with excess blasts (RAEB), refractory cytopenia with multilineage dysplasia and ringed sideroblasts (RCMD-RS). Chronic myelomonocytic leukemia (CMML) is a myelodysplastic/myeloproliferative disease. Myelodysplastic syndromes are considered a premalignant condition in a subgroup of patients that often progresses to acute myeloid leukemia (AML). Bone marrow samples from patients display uniformly low levels of hmC in genomic DNA compared to bone marrow samples from healthy controls as well as hypomethylation relative to controls at the majority of differentially methylated CpG sites.

Sequence similarities

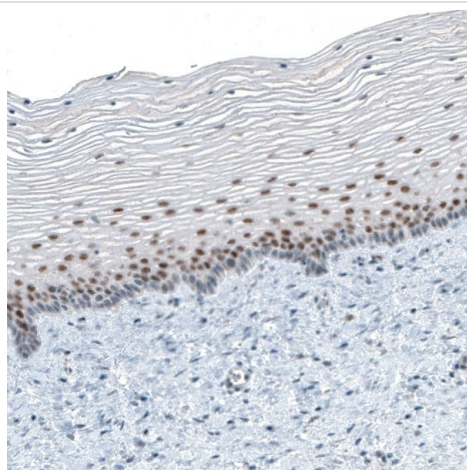
Belongs to the TET family.

Images



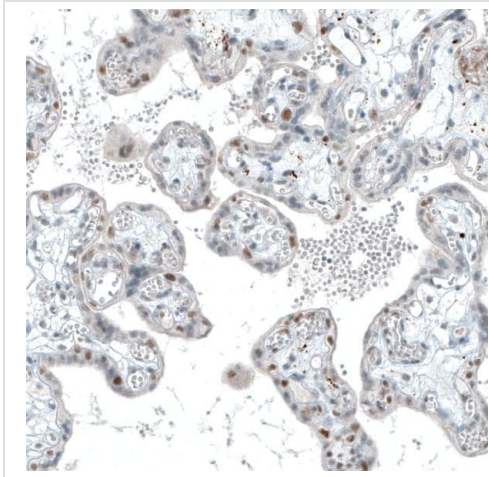
Immunocytochemistry/ Immunofluorescence - Anti-Tet2 antibody [CL6873] (ab243323)

PFA-fixed, Triton X-100 permeabilized U-2 OS (human bone osteosarcoma epithelial cell line) cells stained for Tet2 (green) using ab243323 at 10 µg/ml in ICC/IF. Microtubules visualized in red.



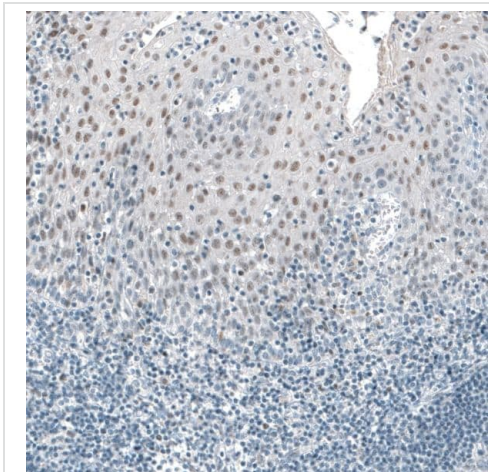
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tet2 antibody [CL6873] (ab243323)

Paraffin-embedded human uterine cervix tissue stained for Tet2 using ab243323 at 1/50 dilution in immunohistochemical analysis.



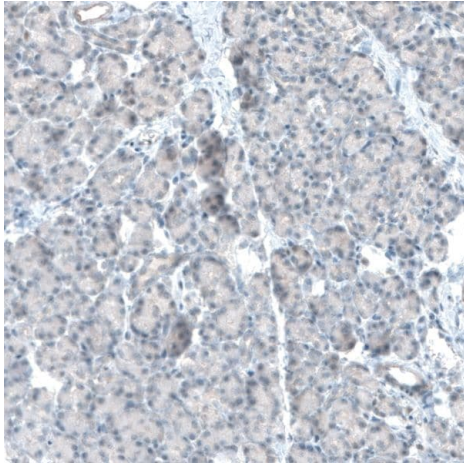
Paraffin-embedded human placenta tissue stained for Tet2 using ab243323 at 1/50 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tet2 antibody [CL6873] (ab243323)



Paraffin-embedded human tonsil tissue stained for Tet2 using ab243323 at 1/50 dilution in immunohistochemical analysis.

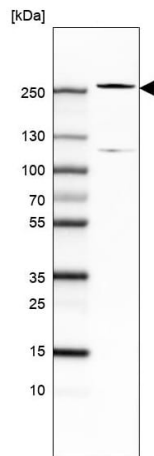
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tet2 antibody [CL6873] (ab243323)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tet2 antibody [CL6873] (ab243323)

Paraffin-embedded human pancreas tissue stained for Tet2 using ab243323 at 1/50 dilution in immunohistochemical analysis.

Negative staining.



Western blot - Anti-Tet2 antibody [CL6873] (ab243323)

Anti-Tet2 antibody [CL6873] (ab243323) at 1 µg/ml + HL-60 (human promyelocytic leukemia cell line) cell lysate

Predicted band size: 224 kDa

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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