

## TET2

CONTACT INFORMATION:	Monoclonal Antibodies Unit. Centro Nacional de Investigaciones Oncológicas
STATUS:	Validated
TYPE:	Rat monoclonal
CLONE NAME:	CADA359A
PROTEIN:	Methylcytosine dioxygenase TET2
PROTEIN WEB:	<a href="https://www.uniprot.org/uniprot/Q6N021">https://www.uniprot.org/uniprot/Q6N021</a>
ANTIGEN USED:	TET2-HIS fragment (1388-2002aa) recombinant protein
FUSION PARTNER:	NS1/Ag4-1 (NS1) cells
ISOTYPE:	IgG1 lambda
SPECIES REACTIVITY:	Human
PREPARATION AND STORAGE:	Aliquot and store at 4C. Do not freeze

### 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. 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.

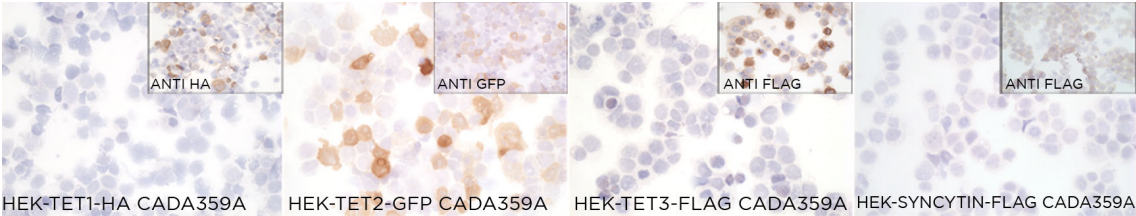
### APPLICATIONS

IHC Techniques	Clone	Dilution	Antibody concentration	Antigen retrieval method	Visualization kit	Positive control	Negative control	Protein localization	Positivity in other species
Frozen tissue and cytopins									
Recommended	CADA359A	Neat	supernatant						

Paraffin tissue

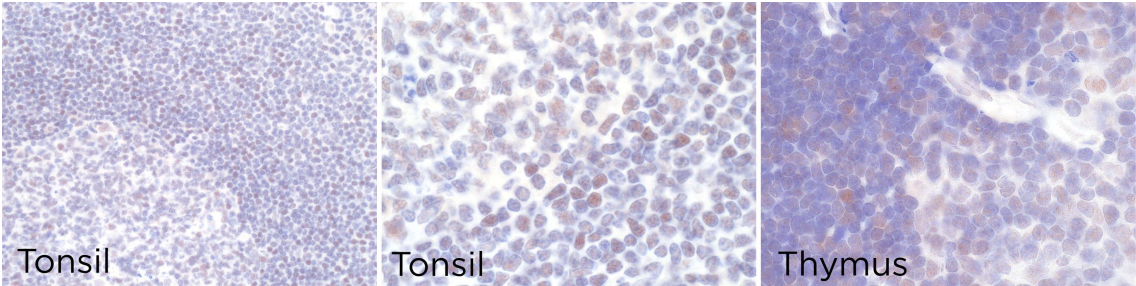
Recommended	CADA359A	1:5	supernatant	Tris-EDTA	Novolink	Tonsil		nuclear	
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Immunofluorescence



CADA359A mAb is able to detect human TET2 protein in immunocytochemistry.

To confirm that CADA359A mAb recognizes human TET2 protein, immunocytochemistry on frozen cytopins preparations of HA, GFP and FLAG-tagged human TET1, TET2 and TET3 expressed in HEK293 was performed. Anti-HA, GFP and FLAG antibodies were used as positive control. Cytospin preparation of FLAG-tagged human SYNCYTIN1 was used as a negative control.



CADA359A antibody can be used to detect TET2 protein in human paraffin tissues.