

Anti-PADI4 / PAD4 antibody ab96758

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

Overview

Product name	Anti-PADI4 / PAD4 antibody
Description	Rabbit polyclonal to PADI4 / PAD4
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Mouse, Human
Immunogen	Recombinant fragment containing a sequence corresponding to a region within amino acids 326-581 of Human PADI4/ PAD4 (AAH25718).
Positive control	WB: Transfected HEK-293 T whole cell lysate, human spleen tissue extract; IHC-P: Cal27 xenograft and mouse ovary tissue; IF: HeLa 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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.00</p> <p>Preservative: 0.025% Proclin 300</p> <p>Constituents: 78% PBS, 1% BSA, 20% Glycerol (glycerin, glycerine)</p>
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab96758 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	★★★★★ (1)	1/500 - 1/10000. Predicted molecular weight: 74 kDa.
IHC-P	★★★★★ (1)	1/100 - 1/1000.
ICC/IF		1/100 - 1/1000.

Target

Function

Catalyzes the citrullination/deimination of arginine residues of proteins. Citrullinates histone H3 at 'Arg-8' and/or 'Arg-17' and histone H4 at 'Arg-3', which prevents their methylation by CARM1 and HRMT1L2/PRMT1 and represses transcription. Citrullinates EP300/P300 at 'Arg-2142', which favors its interaction with NCOA2/GRIP1.

Tissue specificity

Expressed in eosinophils and neutrophils, not expressed in peripheral monocytes or lymphocytes.

Involvement in disease

Genetic variations in PADI4 are a cause of susceptibility to rheumatoid arthritis (RA) [MIM:180300]. It is a systemic inflammatory disease with autoimmune features and a complex genetic component. It primarily affects the joints and is characterized by inflammatory changes in the synovial membranes and articular structures, widespread fibrinoid degeneration of the collagen fibers in mesenchymal tissues, and by atrophy and rarefaction of bony structures. Note=Could have an important role in the pathogenesis of rheumatoid arthritis by increasing citrullination of proteins in rheumatoid arthritis synovial tissues, leading, in a cytokine-rich milieu, to a break in tolerance to citrullinated peptides processed and presented in the appropriate HLA context.

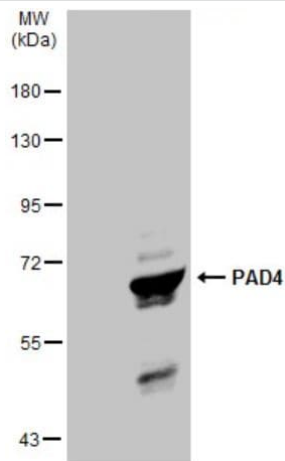
Sequence similarities

Belongs to the protein arginine deiminase family.

Cellular localization

Cytoplasm. Nucleus. Cytoplasmic granule. Cytoplasmic granules of eosinophils and neutrophils.

Images



Western blot - Anti-PADI4 / PAD4 antibody
(ab96758)

All lanes : Anti-PADI4 / PAD4 antibody (ab96758) at 1/5000 dilution

Lane 1 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

Lane 2 : PAD4-transfected HEK-293T whole cell lysate

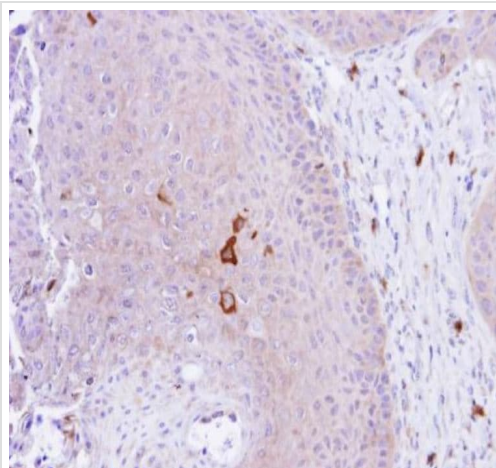
Lysates/proteins at 30 µg per lane.

Secondary

All lanes : HRP-conjugated anti-rabbit IgG antibody

Predicted band size: 74 kDa

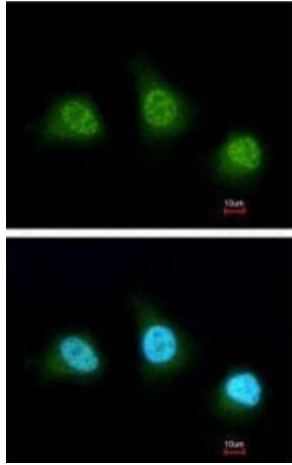
7.5% SDS-PAGE



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PADI4 / PAD4 antibody
(ab96758)

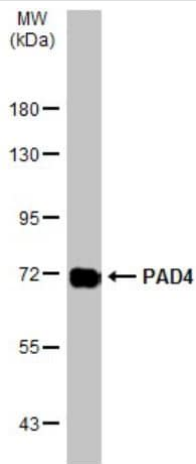
Immunohistochemical analysis of paraffin-embedded Cal27 xenograft tissue staining PADI4/PAD4 with ab96758 at 1/100 dilution.

Antigen Retrieval: EDTA based buffer, pH 8.0, 15min.



Immunocytochemistry/ Immunofluorescence - Anti-PADI4 / PAD4 antibody (ab96758)

Immunofluorescence analysis of paraformaldehyde-fixed HeLa (human epithelial cell line from cervix adenocarcinoma) whole cells labeling PADI4/PAD4 with ab96758 at 1/200 dilution.



Western blot - Anti-PADI4 / PAD4 antibody (ab96758)

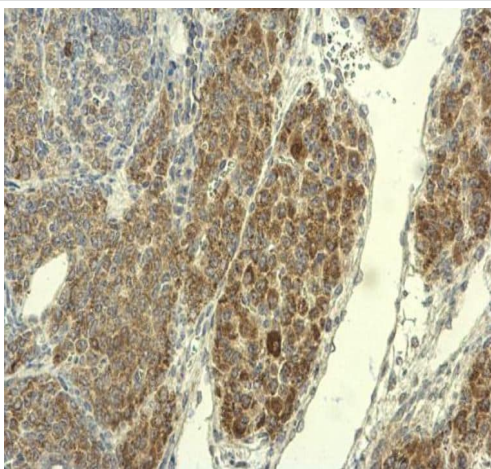
Anti-PADI4 / PAD4 antibody (ab96758) at 1/1000 dilution + Human spleen tissue extract at 30 µg

Secondary

HRP-conjugated anti-rabbit IgG antibody

Predicted band size: 74 kDa

7.5% SDS-PAGE



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PADI4 / PAD4 antibody (ab96758)

Immunohistochemical analysis of paraffin-embedded mouse ovary tissue staining PADI4/PAD4 at cytoplasm with ab96758 at 1/500 dilution.

Antigen Retrieval: EDTA based buffer, pH 8.0, 15min.

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