abcam

Product datasheet

# Anti-PADI4 / PAD4 antibody ab26071

1 References 2 Images

## Overview

| | |
|---|---|
| **Product name** | Anti-PADI4 / PAD4 antibody |
| **Description** | Goat polyclonal to PADI4 / PAD4 |
| **Host species** | Goat |
| **Tested applications** | **Suitable for:** ICC |
| **Species reactivity** | **Reacts with:** Human |
| **Immunogen** | Synthetic peptide corresponding to Human PADI4/ PAD4 aa 1-100 (N terminal).<br>Database link: **NP_036519.2**<br>Run BLAST with Run BLAST with |
| **Positive control** | ICC: HeLa and U2OS cells. |
| **General notes** | 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.<br>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 |

## 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** | pH: 7.30<br>Preservative: 0.02% Sodium azide<br>Constituents: 99% Tris buffered saline, 0.5% BSA |
| **Purity** | Immunogen affinity purified |
| **Purification notes** | This antibody was purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide. |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab26071 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 |
|---|---|---|
| ICC | | Use a concentration of 10 µg/ml. |

## 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.

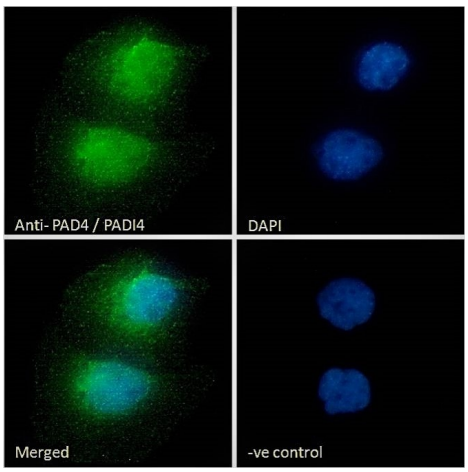
**Tissue specificity** Expressed in eosinophils and neutrophils, not expressed in peripheral monocytes or lymphocytes.

**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.

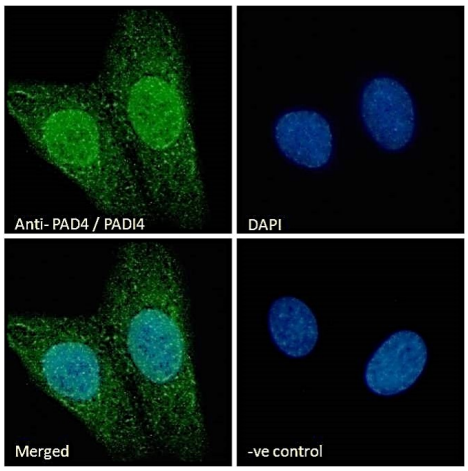
**Cellular localization** Cytoplasm. Nucleus. Cytoplasmic granule. Cytoplasmic granules of eosinophils and neutrophils.

## Images




Immunocytochemistry - Anti-PADI4 / PAD4 antibody (ab26071)

Immunocytochemistry analysis of HeLa cells labeling PADI4 / PAD4 antibody with ab26071 at 10 µg/mL (1 hour incubation). Cells were fixed with paraformaldehyde and permeabilized with 0.15% Triton. Alexa Fluor® 488 2 µg/mL was used as the secondary antibody. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG at 10 µg/mL followed by Alexa Fluor® 488 secondary antibody 2 µg/mL.




Immunocytochemistry - Anti-PADI4 / PAD4 antibody (ab26071)

Immunocytochemistry analysis of U2OS cells labeling PADI4 / PAD4 antibody with ab26071 at 10 µg/mL (1 hour incubation). Cells were fixed with paraformaldehyde and permeabilized with 0.15% Triton. Alexa Fluor® 488 2 µg/mL was used as the secondary antibody. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG at 10 µg/mL followed by Alexa Fluor® 488 secondary antibody 2 µg/mL.



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