# Product datasheet

## Anti-PADI4 / PAD4 antibody [OTI4H5] ab128086

### Overview

**Product name**  
Anti-PADI4 / PAD4 antibody [OTI4H5]

**Description**  
Mouse monoclonal [OTI4H5] to PADI4 / PAD4

**Host species**  
Mouse

**Tested applications**  
Suitable for: WB, IHC-P, Flow Cyt, ICC/IF

**Species reactivity**  
Reacts with: Human

**Immunogen**  
Recombinant full length protein, corresponding to amino acids 1-663 of Human PADI4/ PAD4 produced in HEK293T cells (NP_036519).

**Positive control**  
HEK293T cells transfected with PADI4 / PAD4 , Human breast, Carcinoma of Human lung, Adenocarcinoma of Human ovary, Human pancreas, Adenocarcinoma of Human endometrium, Human prostate, Carcinoma of Human prostate, Carcinoma of Human bladder and Human lymphoma tissues, COS7 cells transiently transfected by pCMV6-ENTRY PADI4 / PAD4 , Hela and Jurkat cells

**General notes**  
Dilute in PBS (pH7.3) before use.  
The clone number has been updated from 4H5 to OTI4H5, both clone numbers name the same antibody clone.

### Properties

**Form**  
Liquid

**Storage instructions**  
Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.

**Storage buffer**  

- pH: 7.30
- Preservative: 0.02% Sodium azide
- Constituents: 48% PBS, 50% Glycerol, 1% BSA

**Purity**  
Protein A purified

**Purification notes**  
Purified from TCS

**Clonality**  
Monoclonal

**Clone number**  
OTI4H5

**Isotype**  
IgG2a

### Applications
Our Abpromise guarantee covers the use of ab128086 in the following tested applications.

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/150.</td>
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<tr>
<td>Flow Cyt</td>
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<td>1/100. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>ICC/IF</td>
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**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**

**Images**

2
All lanes: Anti-PAD4 / PAD4 antibody [OTI4H5] (ab128086) at 1/2000 dilution

Lane 1: HEK293T cells transfected with pCMV6-ENTRY control cDNA
Lane 2: HEK293T cells transfected with pCMV6-ENTRY PAD4 cDNA

Lysates/proteins at 5 µg per lane.

Predicted band size: 74 kDa

HEK293T cell lysates were generated from transient transfection of the cDNA clone (RC206501)

ab128086, at a dilution of 1/150, staining PAD4 / PAD4 in paraffin-embedded Human breast tissue by Immunohistochemistry.

ab128086, at a dilution of 1/100, staining COS7 cells transiently transfected by pCMV6-ENTRY PAD4 by Immunofluorescence.
ab128086, at a dilution of 1/100, staining PADI4 / PAD4 in HeLa cells (Red), compared to a nonspecific negative control antibody (Blue), analysed by Flow cytometric.

ab128086, at a dilution of 1/150, staining PADI4 / PAD4 in paraffin-embedded carcinoma of Human lung tissue by Immunohistochemistry.

ab128086, at a dilution of 1/150, staining PADI4 / PAD4 in paraffin-embedded Adenocarcinoma of Human ovary tissue by Immunohistochemistry.
ab128086, at a dilution of 1/150, staining PADI4 / PAD4 in paraffin-embedded Human pancreas tissue by Immunohistochemistry.

ab128086, at a dilution of 1/150, staining PADI4 / PAD4 in paraffin-embedded Adenocarcinoma of Human endometrium tissue by Immunohistochemistry.

ab128086, at a dilution of 1/150, staining PADI4 / PAD4 in paraffin-embedded Human prostate tissue by Immunohistochemistry.
ab128086, at a dilution of 1/150, staining PAD4 / PAD4 in paraffin-embedded Carcinoma of Human prostate tissue by Immunohistochemistry.

ab128086, at a dilution of 1/150, staining PAD4 / PAD4 in paraffin-embedded Carcinoma of Human bladder tissue by Immunohistochemistry.

ab128086, at a dilution of 1/150, staining PAD4 / PAD4 in paraffin-embedded Human lymphoma tissue by Immunohistochemistry.
ab128086, at a dilution of 1/100, staining PADI4 / PAD4 in Jurkat cells (Red), compared to a nonspecific negative control antibody (Blue), analysed by Flow cytometric.

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