

## Product datasheet

# Anti-PADI2 / PAD2 antibody ab16478

★★★★★ 2 Abreviews 11 References 4 Images

### Overview

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<b>Product name</b>	Anti-PADI2 / PAD2 antibody
<b>Description</b>	Rabbit polyclonal to PADI2 / PAD2
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab16478 recognises a specific 43kDa band corresponding to PADI2, which is specifically blocked using the immunizing peptide in human colon, skeletal muscle and kidney lysates. There is a non-specific 18kDa band present in skeletal muscle lysates, which is attributed to cross-reactivity of the PADI2 antibody
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, ICC/IF, IHC-P, ELISA, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Rat, Human
<b>Immunogen</b>	Synthetic peptide conjugated to KLH derived from within residues 100 - 200 of Human PADI2/PAD2. Read Abcam's proprietary immunogen policy
<b>Positive control</b>	<p>This antibody gave a positive signal in the following whole tissue lysates: Human Kidney Normal.</p> <p>This antibody gave a positive signal in the following tissues: Formalin Fixed Paraffin Embedded Human Rectum Normal.</p> <p>This antibody gave a positive signal in the following cell lines: HEK293; Human Peripheral Blood Mononuclear cells.</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

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Our [Abpromise guarantee](#) covers the use of **ab16478** in the following tested applications.

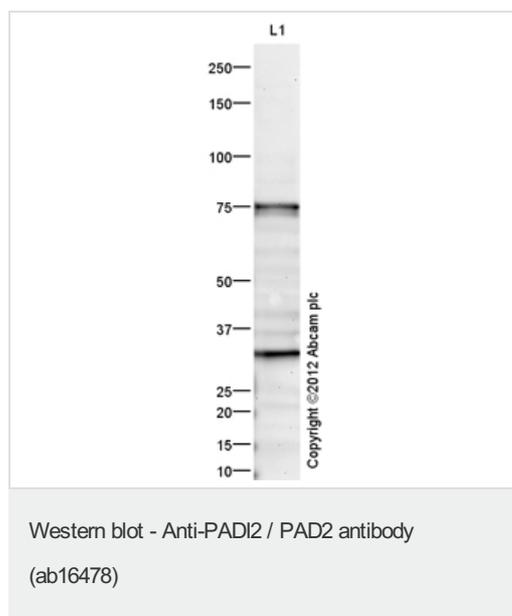
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt	★★★★★	1/10. <a href="#">ab171870</a> - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		Use a concentration of 5 µg/ml.
IHC-P		1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ELISA		Use at an assay dependent concentration. PubMed: 19085382
WB	★★★☆☆	Use a concentration of 1 µg/ml. Detects a band of approximately 75 kDa (predicted molecular weight: 76 kDa).

## Target

<b>Function</b>	Catalyzes the deimination of arginine residues of proteins.
<b>Sequence similarities</b>	Belongs to the protein arginine deiminase family.
<b>Cellular localization</b>	Cytoplasm.

## Images



Anti-PADI2 / PAD2 antibody (ab16478) at 1 µg/ml + Human kidney tissue lysate - total protein ([ab30203](#)) at 20 µg

### Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 76 kDa

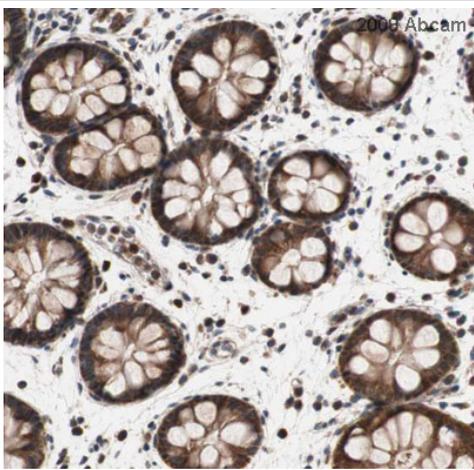
**Observed band size:** 75 kDa

[why is the actual band size different from the predicted?](#)

**Additional bands at:** 34 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 20 minutes

This blot was produced using a 10% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 5% Bovine Serum Albumin before being incubated with ab16478 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution. The 75-kDa band observed is consistent with what has been described in the literature (PMID:18668562; 20668670; 16723463).

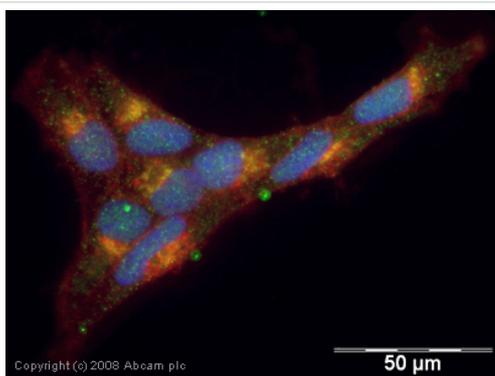


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PAD2 / PAD2 antibody (ab16478)

Image courtesy of [Human Protein Atlas](#)

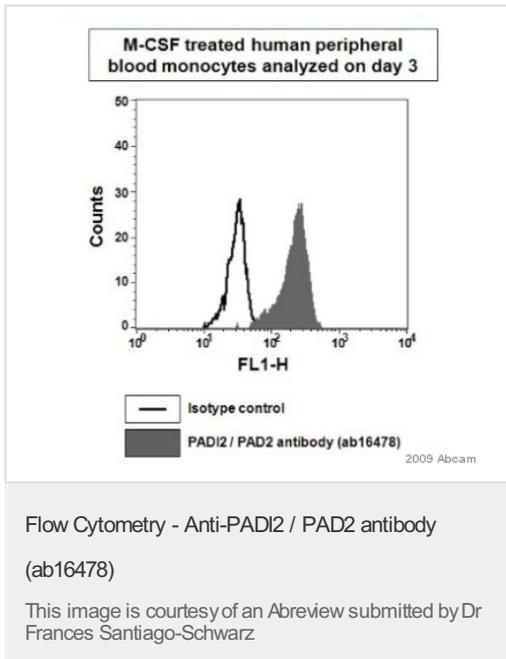
ab16478 staining PAD2 in female rectum, showing a distinct and strong staining pattern in glandular cells. Paraffin embedded human rectal tissue was incubated with ab16478 (1/100 dilution) for 30 mins at room temperature. Antigen retrieval was performed by heat induction in citrate buffer pH 6.

ab16478 was tested in a tissue microarray (TMA) containing a wide range of normal and cancer tissues as well as a cell microarray consisting of a range of commonly used, well characterised human cell lines. Further results for this antibody can be found at [www.proteinatlas.org](http://www.proteinatlas.org).



Immunocytochemistry/ Immunofluorescence - Anti-PAD2 / PAD2 antibody (ab16478)

ICC/IF image of ab16478 stained human Hek293 cells. The cells were PFA fixed (10 min), permabilised in 0.1% PBS-Tween (20 min) and incubated with the antibody (ab16478, 5μg/ml) for 1h at room temperature. 1%BSA / 10% normal goat serum / 0.3M glycine was used to block non-specific protein-protein interactions. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red). DAPI was used to stain the cell nuclei (blue).



ab16478 staining human peripheral blood mononuclear cells (cultured with M-CSF) by Flow Cytometry. Cells were treated with flow cytometry staining buffer (PBS 0.1% sodium azide 1% BSA) and gating was done on myeloid cells. The primary antibody was diluted 1/10 (PBS 0.1% sodium azide 1% BSA) and incubated with sample for 20 minutes at 25°C. An Alexa Fluor® conjugated goat polyclonal to rabbit IgG was used undiluted as secondary.

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