

For Research Use Only

# PADI4 Polyclonal antibody

Catalog Number: 17373-1-AP

Featured Product

28 Publications



## Basic Information

**Catalog Number:**

17373-1-AP

**Size:**

860 µg/ml

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG11068

**GenBank Accession Number:**

BC025718

**GeneID (NCBI):**

23569

**UNIPROT ID:**

Q9UM07

**Full Name:**

peptidyl arginine deiminase, type IV

**Calculated MW:**

663 aa, 74 kDa

**Observed MW:**

67 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:1000-1:6000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF 1:200-1:800

## Applications

**Tested Applications:**

FC, IF/ICC, IHC, IP, WB, ELISA

**Cited Applications:**

WB, IP, IF, IHC, CoIP

**Species Specificity:**

human, mouse, rat

**Cited Species:**

human, rat, mouse

**Positive Controls:**

**WB** : HEK-293 cells, Purified protein, HepG2 cells, C6 cells, RAW 264.7 cells

**IP** : mouse spleen tissue,

**IHC** : human breast cancer tissue, human liver cancer tissue, human tonsillitis tissue

**IF** : A549 cells,

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

PADI4, also named PADI5 and PDI5, catalyzes the citrullination/deimination of arginine residues of proteins such as histones, thereby playing a key role in histone code and regulation of stem cell maintenance. PADI4 is expressed in hematologic and rheumatoid arthritis synovial tissues. PADI4 haplotype associated with susceptibility to rheumatoid arthritis increases the production of citrullinated peptides, leading, in a cytokine-rich milieu, to a break in tolerance to citrullinated peptides processed and presented in the appropriate HLA context. Immunohistochemistry detected significant PADI4 expression in various malignancies and PADI4 expression was not detected in non-tumor tissues. (PMID: 19183436)

## Notable Publications

Author	Pubmed ID	Journal	Application
Xinyan Wu	34721438	Front Immunol	WB
Szilvia Török	34884536	Int J Mol Sci	WB
Atsumu Osada	33238047	Clin Exp Immunol	IHC, IF

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

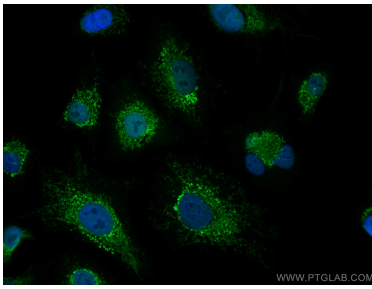
T: 4006900926

E: Proteintech-CN@ptglab.com

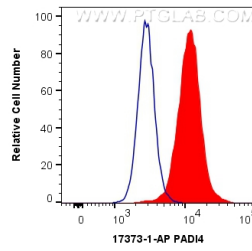
W: ptgcn.com

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

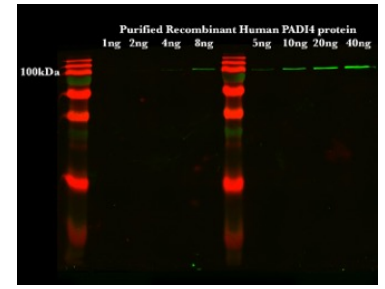
## Selected Validation Data



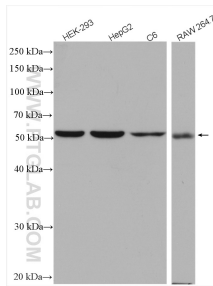
Immunofluorescent analysis of (4% PFA) fixed A549 cells using PADI4 antibody (17373-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



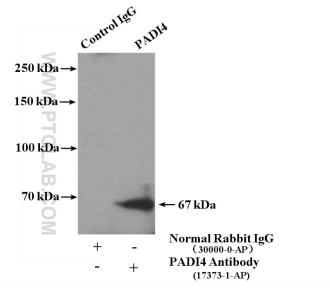
1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug Anti-Human PADI4 (17373-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



WB result of PADI4 antibody (17373-1-AP) with purified protein by T.J. Hollingsworth, Ph.D., University of Tennessee Health Sciences Center.



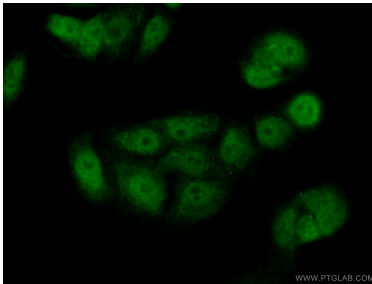
Various lysates were subjected to SDS PAGE followed by western blot with 17373-1-AP (PADI4 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



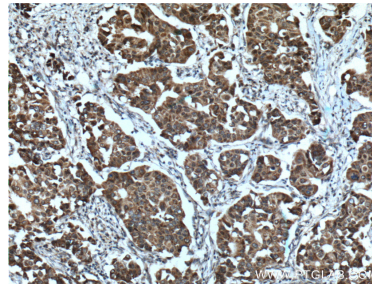
IP result of anti-PADI4 (IP:17373-1-AP, 4ug; Detection:17373-1-AP 1:500) with mouse spleen tissue lysate 4800ug.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 17373-1-AP (PADI4 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (10% Formaldehyde) fixed A549 cells using 17373-1-AP (PADI4 antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 17373-1-AP (PADI4 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).