

Rabbit anti-Human, Rat PADI4 Polyclonal Antibody | anti-PADI4 antibody

PADI4 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326450	Rabbit	Human, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

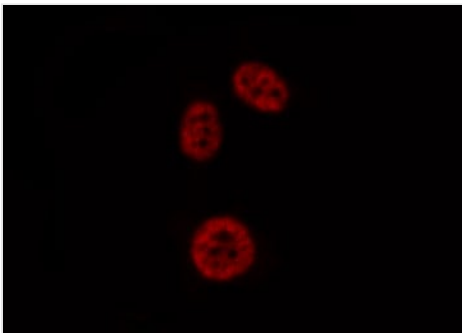
PRODUCT SYNONYMS

PADI4; Polyclonal Antibody; PADI4 Antibody; EC 3.5.3.15; HL 60 PAD; HL-60 PAD; PAD 4; PAD; PADI 4; PADI 5; PADI H protein; Padi4; PADI4_HUMAN; PADI5; PDI 4; PDI 5; PDI4; PDI5; Peptidyl arginine deiminase type IV; Peptidyl arginine deiminase type V; Peptidylarginine deiminase IV; Protein arginine deiminase; Protein arginine deiminase type 4; Protein arginine deiminase type IV; Protein-arginine deiminase type IV; Protein-arginine deiminase type-4; anti-PADI4 antibody

PRODUCT SPECIFICATIONS

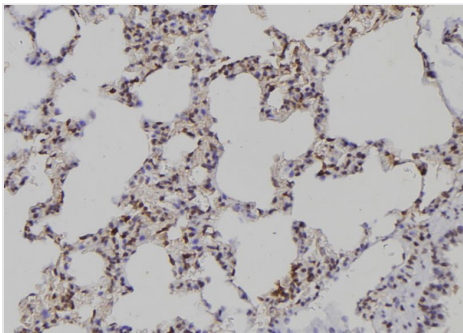
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PADI4 antibody detects endogenous levels of total PADI4
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	663
Applicable Applications for anti-PADI4 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PADI4
Subcellular Location	Cytoplasm. Nucleus. Cytoplasmic Granule. Cytoplasmic granules of eosinophils and neutrophils.
Tissue Specificity	Expressed in eosinophils and neutrophils, not expressed in peripheral monocytes or lymphocytes.
Predicted Cross Reactivity	Rabbit
Similarity	Rabbit (82%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



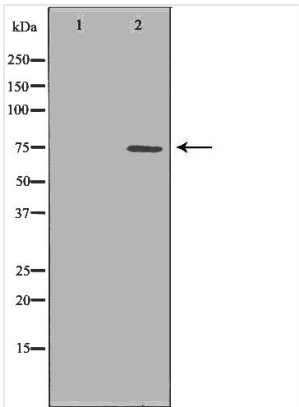
IF (Immunofluorescence)

AAA326450 staining HepG2 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)

AAA326450 at 1/100 staining Rat lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of HepG2 cell lysate, using PADI4 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PADI4 antibody

Description: This gene is a member of a gene family which encodes enzymes responsible for the conversion of arginine residues to citrulline residues. This gene may play a role in granulocyte and macrophage development leading to inflammation and immune response.

Function: 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. Citrullinates histone H1 at 'Arg-54' (to form H1R54ci), histone H3 at 'Arg-2', 'Arg-8', 'Arg-17' and/or 'Arg-26' (to form H3R2ci, H3R8ci, H3R17ci, H3R26ci, respectively) and histone H4 at 'Arg-3' (to form H4R3ci). Acts as a key regulator of stem cell maintenance by mediating citrullination of histone H1: citrullination of 'Arg-54' of histone H1 (H1R54ci) results in H1 displacement from chromatin and global chromatin decondensation, thereby promoting pluripotency and stem cell maintenance. Promotes profound chromatin decondensation during the innate immune response to infection in neutrophils by mediating formation of H1R54ci. Citrullination of histone H3 prevents their methylation by CARM1 and HRMT1L2/PRMT1 and represses transcription. Citrullinates EP300/P300 at 'Arg-2142', which favors its interaction with NCOA2/GRIP1.

Post-translational Modifications: Autocitrullination at Arg-372 and Arg-374 inactivates the enzyme.

Similarity: Belongs to the protein arginine deiminase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	216548487
NCBI GeneID	23569
NCBI Accession #	NP_036519.2

NCBI GenBank Nucleotide #	NM_012387.2
UniProt Accession #	Q9UM07; Q5VTZ8; Q70SX4; A8K392; B2RBW0
Molecular Weight	Observed: 74 kDa Predicted: 75 kDa
NCBI Official Full Name	protein-arginine deiminase type-4
NCBI Official Synonym Full Names	peptidyl arginine deiminase 4
NCBI Official Symbol	PADI4
NCBI Official Synonym Symbols	PAD; PAD4; PDI4; PDI5; PADI5
NCBI Protein Information	protein-arginine deiminase type-4
UniProt Protein Name	Protein-arginine deiminase type-4
UniProt Gene Name	PADI4
UniProt Synonym Gene Names	PAD4; PADI5; PDI5

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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