

**Product Name: KD-Validated PADI2 Mouse Monoclonal Antibody****Catalog #: KVA01099**

For research use only.

**Summary**

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Mouse                                                                       |
| <b>Application</b>  | WB,IHC-P                                                                    |
| <b>Reactivity</b>   | Human,Mouse,Rat                                                             |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Mouse IgG2a                                                                 |
| <b>Clonality</b>    | Mouse mAb                                                                   |
| <b>Form</b>         | Liquid                                                                      |
| <b>Storage</b>      | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| <b>Shipping</b>     | Ice bags                                                                    |
| <b>Buffer</b>       | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.   |
| <b>Purification</b> | Affinity purification                                                       |

**Application**

|                         |                                     |
|-------------------------|-------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:500-1:2,500; IHC-P 1:100-1:200 |
| <b>Molecular Weight</b> | Calculated MW: 75.6kDa              |

**Antigen Information**

|                          |                                                                                                                                  |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | PADI2<br>PADI2; Peptidyl Arginine Deiminase 2; PDI2; KIAA0994; Peptidyl Arginine Deiminase, Type II;                             |
| <b>Alternative Names</b> | Protein-Arginine Deiminase Type II; Protein-Arginine Deiminase Type-2; EC 3.5.3.15; PAD-H19; PAD2; Peptidylarginine Deiminase II |
| <b>Gene ID</b>           | 11240.0                                                                                                                          |
| <b>SwissProt ID</b>      | Q9Y2J8                                                                                                                           |
| <b>Immunogen</b>         | Recombinant protein of human PADI2                                                                                               |

**Background**

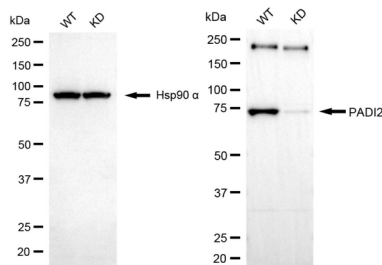
This gene encodes a member of the peptidyl arginine deiminase family of enzymes, which catalyze the post-translational deimination of proteins by converting arginine residues into citrullines in the presence of calcium ions. The family members

have distinct substrate specificities and tissue-specific expression patterns. The type II enzyme is the most widely expressed family member. Known substrates for this enzyme include myelin basic protein in the central nervous system and vimentin in skeletal muscle and macrophages. This enzyme is thought to play a role in the onset and progression of neurodegenerative human disorders, including Alzheimer disease and multiple sclerosis, and it has also been implicated in glaucoma pathogenesis. This gene exists in a cluster with four other paralogous genes. [provided by RefSeq, Jul 2008]

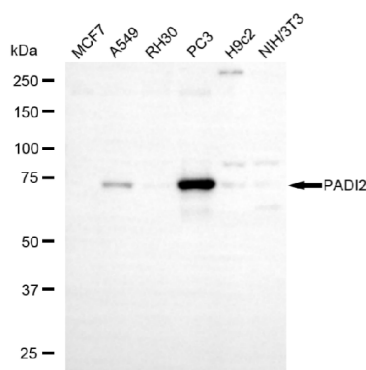
## Research Area

Neuroscience, Signal Transduction, Epigenetics and Nuclear Signaling, Metabolism

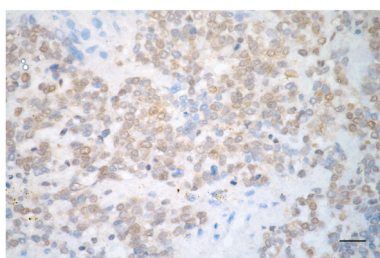
## Image Data



Western blotting analysis using PADI2 antibody (KVA01099). PADI2 expression in wild-type (WT) and PADI2 knockdown (KD) 293T cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with PADI2 antibody (KVA01099, 1:1,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



Western blotting analysis using PADI2 antibody (KVA01099). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with PADI2 antibody (KVA01099, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human breast carcinoma using PADI2 antibody (KVA01099, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.