

PADI6 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP18363a

Product Information

Application	WB, E
Primary Accession	Q6TGC4
Other Accession	NP_997304.3
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37739
Calculated MW	77727
Antigen Region	196-223

Additional Information

Gene ID	353238
Other Names	Protein-arginine deiminase type-6, Peptidyl arginine deiminase-like protein, Peptidylarginine deiminase VI, hPADVI, Protein-arginine deiminase type VI, PADI6
Target/Specificity	This PADI6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 196-223 amino acids from the N-terminal region of human PADI6.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PADI6 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PADI6 {ECO:0000303 PubMed:15087120, ECO:0000312 HGNC:HGNC:20449}
Function	Structural constituent of cytoplasmic lattices, which plays a key role in early embryonic development (PubMed: 37922900). Cytoplasmic lattices consist in

fibrous structures found in the cytoplasm of oocytes and preimplantation embryos (PubMed:[37922900](#)). They are required to store maternal proteins critical for embryonic development, such as ribosomal proteins and proteins that control epigenetic reprogramming of the preimplantation embryo, and prevent their degradation or activation (PubMed:[37922900](#)). In contrast to other members of the family, does not show protein-arginine deiminase activity due to its inability to bind Ca^{2+} (PubMed:[38656308](#), PubMed:[39286527](#)).

Cellular Location

Cytoplasm. Cytoplasmic vesicle, secretory vesicle, Cortical granule {ECO:0000250|UniProtKB:Q8K3V4}. Nucleus {ECO:0000250|UniProtKB:Q8K3V4}. Note=Core component of cytoplasmic lattices in oocytes (PubMed:37922900). Also nuclear (By similarity) {ECO:0000250|UniProtKB:Q8K3V4, ECO:0000269|PubMed:37922900}

Tissue Location

Highly expressed in oocytes and weakly expressed in other somatic tissues.

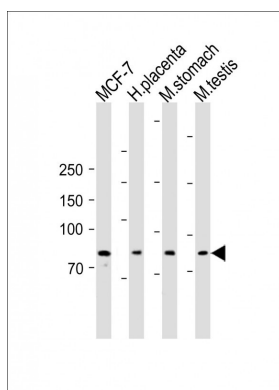
Background

Peptidylarginine deiminases (PADs, EC 3.5.3.15), including PADI6, make up a family of posttranslational protein modification enzymes that convert arginine residues to citrulline residues in the presence of calcium ions.

References

Stacey, S.N., et al. Nat. Genet. 40(11):1313-1318(2008)
Chavanas, S., et al. Gene 330, 19-27 (2004) :
Zhang, J., et al. Acta Biochim. Pol. 51(4):1051-1058(2004)
Vossenaar, E.R., et al. Bioessays 25(11):1106-1118(2003)

Images



All lanes: Anti-PADI6 Antibody (N-term) at 1:1000 dilution
Lane 1: MCF-7 whole cell lysate Lane 2: Human placenta lysate Lane 3: Mouse stomach lysate Lane 4: Mouse testis lysate
Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 78 kDa
Blocking/Dilution buffer: 5% NFDm/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.