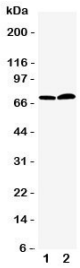
PAD4 Antibody / Protein-arginine deiminase type-4 / PADI4 (R31153)

Catalog No.	Formulation	Size
R31153	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal
UniProt	Q9UM07
Applications	Western blot: 0.5-1ug/ml
Limitations	This PAD4 antibody is available for research use only.



Western blot testing of PAD4 antbody; Lane 1: PANC; 2: 293T cell lysate.
Predicted/observed size ~72KD

Description

Peptidylarginine Deiminase, Type IV is a human protein which in humans is encoded by the PADI4 gene. Peptidylarginine deiminases make up a family of posttranslational modification enzymes that convert arginine residues to citrulline residues in the presence of calcium ion(Nakashima et al., 1999). Suzuki et al.(2003) found from sequence data that the gene maps to 1p36. Cuthbert et al.(2004) described a process, deimination, that converts histone arginine to citrulline and antagonizes arginine methylation. They showed that the protein specifically deiminated arg2, arg8, arg17, and arg26 in the H3 tail. Deimination by PAD4 prevented arginine methylation by CARM1. Dimethylation of arginines prevented deimination by PAD4, although monomethylation still allowed deimination to take place. In vivo targeting experiments on

an endogenous promoter demonstrated that the protein could repress hormone receptor-mediated gene induction. It was recruited to the pS2 promoter following hormone induction when the gene was transcriptionally downregulated, consistent with a repressive role.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the PAD4 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the middle region of human PAD4 (ASPRSCYKLFQEQQNEGHGEA) was used as the immunogen for this PAD4 antibody.

Storage

After reconstitution, the PAD4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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