## SANTA CRUZ BIOTECHNOLOGY, INC.

# PADI4 (h): 293T Lysate: sc-114204



### BACKGROUND

The protein arginine deiminase (PAD) family of proteins are often referred to as peptidylarginine deiminases. They catalyze the deimination of arginine residues of proteins. In the presence of calcium, the proteins in the PAD family act as catalysts for the posttranslational modification reaction that converts methylarginine to citrulline. The PAD proteins are cytoplasmic proteins primarily detected in eosinophils and neutrophils. The gene encoding for PADI4 is believed to have a rheumatoid arthritis susceptibility locus. By increasing the citrullination of proteins in rheumatoid arthritis synovial tissues, it may play a role in the pathogenesis of the disease.

#### REFERENCES

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- 4. Harney, S.M., et al. 2005. Genetic and genomic studies of PADI4 in rheumatoid arthritis. Rheumatology 44: 869-872.
- Barton, A., et al. 2005. Investigation of polymorphisms in the PADI4 gene in determining severity of inflammatory polyarthritis. Ann. Rheum. Dis. 64: 1311-1315.
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- Nakayama-Hamada, M., et al. 2005. Comparison of enzymatic properties between hPADI2 and hPADI4. Biochem. Biophys. Res. Commun. 327: 192-200.
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## CHROMOSOMAL LOCATION

Genetic locus: PADI4 (human) mapping to 1p36.13.

## PRODUCT

PADI4 (h): 293T Lysate represents a lysate of human PADI4 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## **STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

### APPLICATIONS

PADI4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PADI4 antibodies. Recommended use: 10-20  $\mu l$  per lane.

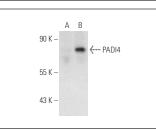
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-tranfected 293T cells.

PADI4 (C-3): sc-166645 is recommended as a positive control antibody for Western Blot analysis of enhanced human PADI4 expression in PADI4 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

#### DATA



PADI4 (C-3): sc-166645. Western blot analysis of PADI4 expression in non-transfected: sc-117752 (A) and human PADI4 transfected: sc-114204 (B) 293T whole cell lysates.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

#### PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.