

# PADI3 (N-16): sc-55692

## BACKGROUND

The protein arginine deiminase (PAD) family of proteins, often referred to as peptidylarginine deiminases, catalyze the deimination of arginine residues of proteins. The PAD proteins, designated PADI1-4, are cytoplasmic proteins primarily detected in eosinophils and neutrophils. In the presence of calcium, PAD proteins act as catalysts for the posttranslational modification reaction that converts methylarginine to citrulline. PADI3 (peptidyl arginine deiminase, type III), also called PAD3 or PDI3, is a cytoplasmic protein that modulates Filaggrin and Trichohyalin (proteins involved in hair structure) during formation of the hair follicle. Expressed in hair and at very low levels in the epidermis, PADI3 is thought to interact with PADI1 and participate in terminal differentiation of the epidermis.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PADI3 (human) mapping to 1p36.13; Padi3 (mouse) mapping to 4 D3.

## SOURCE

PADI3 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PADI3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55692 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PADI3 (N-16) is recommended for detection of PADI3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PADI3 (N-16) is also recommended for detection of PADI3 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for PADI3 siRNA (h): sc-62747, PADI3 siRNA (m): sc-62748, PADI3 shRNA Plasmid (h): sc-62747-SH, PADI3 shRNA Plasmid (m): sc-62748-SH, PADI3 shRNA (h) Lentiviral Particles: sc-62747-V and PADI3 shRNA (m) Lentiviral Particles: sc-62748-V.

Molecular Weight of PADI3: 70 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.