

Recombinant Human PADI3 Protein, His-tagged

Cat. No. PADI3-122H Lot. No. (See product label)

SPECIFICATION

Product Overview	Active human recombinant N-terminal His-tagged full length human PAD3 protein (2-664) was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	2-664
Description	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 III enzyme modulates hair structural proteins, such as filaggrin in the hair follicle and trichohyalin in the inner root sheath, during hair follicle formation. Together with the type I enzyme, this enzyme may also play a role in terminal differentiation of the epidermis. This gene exists in a cluster with four other paralogous genes.
Molecular Mass	76.4 kDa
Purity	≥85% estimated by SDS-PAGE
Unit Definition	One unit is defined as the amount of enzyme required to produce 1 nmol of NH ₄ ⁺ per minute at 37 centigrade in 50 mM HEPES, pH 7.7, containing 10 mM calcium chloride, 5 mM DTT, and 4 mM N-α-Benzoyl-L-Arginineethyl ester (BAEE).

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Stability	≥ 2 years
Storage	At -80 centigrade.
Storage Buffer	50 mM HEPES, pH 8.0, containing 300 mM sodium chloride, 1 mM DTT, and 10% glycerol

GENE INFORMATION

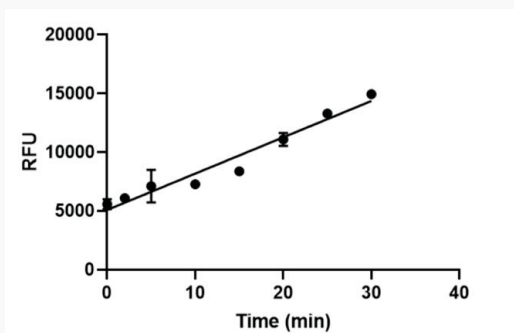
Gene Name	PADI3 peptidyl arginine deiminase 3 [Homo sapiens (human)]
Official Symbol	PADI3
Synonyms	PADI3; peptidyl arginine deiminase 3; PAD3; PDI3; UHS1; protein-arginine deiminase type-3; peptidyl arginine deiminase, type III; peptidylarginine deiminase III; protein-arginine deiminase type III; EC 3.5.3.15
Gene ID	51702
mRNA Refseq	NM_016233
Protein Refseq	NP_057317
MIM	606755
UniProt ID	Q9ULW8

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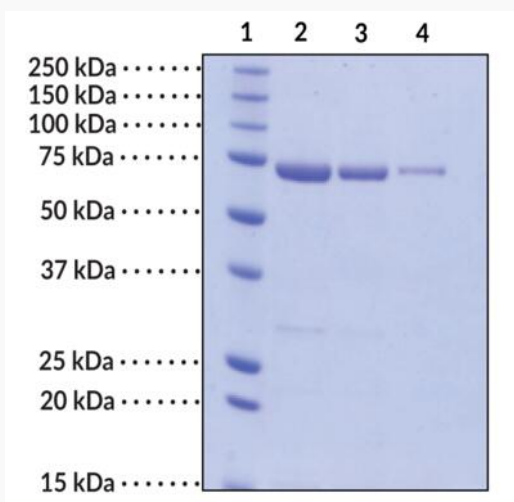
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Activity of PADI3



PADI3 activity was determined using PAD3 Inhibitor Screening Assay Kit with 0.25 μ g PAD3 and 4 mM BAEE substrate.

SDS-PAGE analysis of PADI3



Lane 1: MW Markers

Lane 2: PADI3 (4 μ g)

Lane 3: PADI3 (2 μ g)

Lane 4: PADI3 (1 μ g)