Recombinant Human PADI1 Protein, His-tagged

Cat. No. PADI1-118H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant N-terminal His-tagged full length human PADI1 protein (2-663) was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	2-663
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 I enzyme is involved in the late stages of epidermal differentiation, where it deiminates filaggrin and keratin K1, which maintains hydration of the stratum corneum, and hence the cutaneous barrier function. This enzyme may also play a role in hair follicle formation. This gene exists in a cluster with four other paralogous genes.
Molecular Mass	76.4 kDa
Purity	≥95% as determined by SDS-PAGE
Unit Definition	One unit is defined as the amount of enzyme required to produce 1 nmol of NH4+ per minute at 37 centigrade in 50 mM HEPES, pH 7.7, containing 10 mM calcium chloride, 5 mM DTT, and 2 mM N-Benzoyl-L-Arginine Ethyl Ester (BAEE).

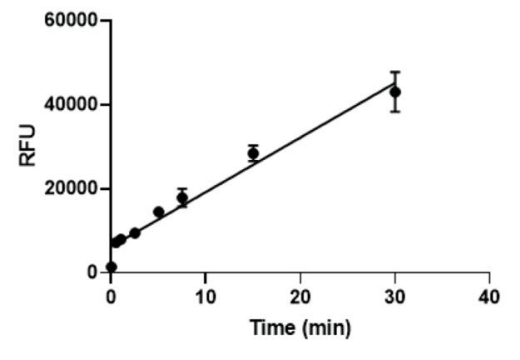
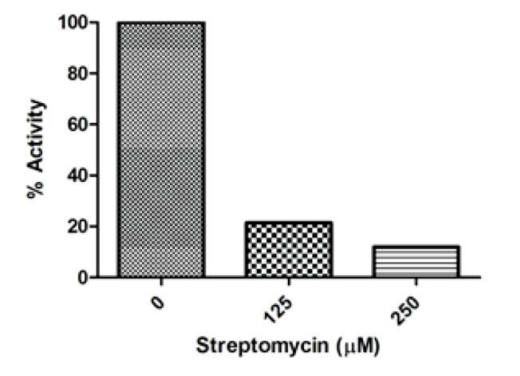
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Stability	≥ 2 year
Storage	At -80 centigrade.
Storage Buffer	50 mM Tris-HCl, pH 8.0, with 150 mM sodium chloride, 1 mM DTT, and 20% glycerol

GENE INFORMATION

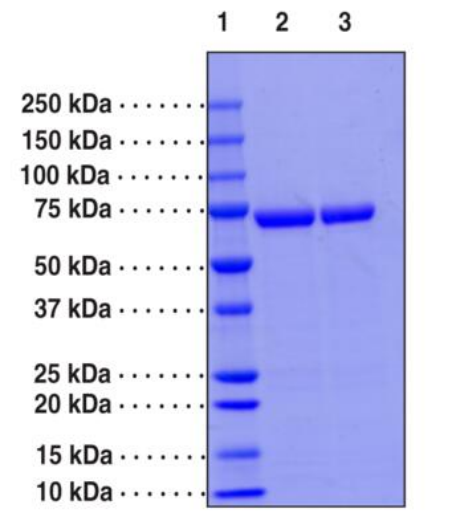
Gene Name	PADI1 peptidyl arginine deiminase 1 [Homo sapiens (human)]
Official Symbol	PADI1
Synonyms	PADI1; peptidyl arginine deiminase 1; PDI; PAD1; PDI1; HPAD10; protein-arginine deiminase type-1; hPAD-colony 10; peptidyl arginine deiminase, type I; peptidylarginine deiminase I; protein-arginine deiminase type I; EC 3.5.3.15
Gene ID	29943
mRNA Refseq	NM_013358
Protein Refseq	NP_037490
MIM	607934
UniProt ID	Q9ULC6

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Activity of PADI4	 PADI1 activity was determined using PAD1 Inhibitor Screening Assay Kit with 2.0 μg PADI1 and 2 mM BAEE substrate.
Inhibition of PADI1 by Streptomycin.	

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

SDS-PAGE analysis of PADI1



Lane 1: MW Markers

Lane 2: PADI1 (2 μg)

Lane 3: PADI1 (4 μg)

Tel: 1-631-559-9269 1-516-512-3133

Email: info@creative-biomart.com Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA