

Product datasheet for **RG213501**

PADI1 (NM_013358) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | PADI1 (NM_013358) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | PADI1 |
| Synonyms: | HPAD10; PAD1; PDI; PDI1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>RG213501 representing NM_013358
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCCAAGAGAGTTGTGCAGCTGTCCCTGAAGATGCCTACCCATGCCGTGTGTGTGGTGGGAGTCG
 AGGCACATGTGGACATTCACAGTGATGTGCCCAAGGGTGCCAACAGCTTCAGGGTCTCTGGAAGCTCCGG
 GGTGGAGGTCTTCATGGTCTACAACCGCACACGTGTAAAAGAGCCCATAGGCAAGGCCCGTTGGCCGCTA
 GACTGATGCAGACATGGTCGTATCTGTGGGCACAGCCAGTAAGGAATTAAGGACTTCAAGGTGAGGG
 TCTCTACTTTGGGGAGCAGGAAGACCAAGCTCTGGGCCGAGCGTGCTTACCTCACTGGCGTCGATAT
 TTCCTTGAGGTTGACACAGGCCGACAGGCAAGGTGAAGAGGAGCAAGGGGACAAGAAAACCTGGCGC
 TGGGGCCCTGAGGGCTATGGGGCTATCTGCTGGTGAAGTGTGACCGGACAATCACAGGTCCGAGAGC
 CTGACCTACCCACAGCTGGCTGATGTCGCTGGCTGACCTGCAGGACATGTCCCAATGCTGCTGAGCTG
 CAATGGCCCCGACAAGCTCTTCGACAGCCACAAGCTTGTCTTGAACGTGCCCTTTCTGATTCCAAAAGA
 GTGAGGGTCTTCTGTGCCAGGGGTGGGAATTCCTCTCGGACTACAAACAGGTGCTGGGGCCCCAGTGT
 GTCTATGAAGTTGAGCGACAGCCAGGGGAGCAGGAGATCAAGTTCTATGTGGAGGGGTGACCTTCCC
 CGATGCCGATTTCTAGGGCTGGTTTCCCTCAGTGTGACCTGGTGGACCCGGGGACCCTGCCGAGGTG
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 CAGGACGAGATGGAGTTTGGCTACATCGAGGCCCTCACAAATCCTTCCCGTGGTCTTTGACTCCCCC
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 GCGGCACGGAATACCCCTGGGCCGATCCTCATCGGGAGCAGCTTCCCAAGTCCGGTGGCGGCAGA
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 GCTCTGTGGGCCATGTGGACGAGTTTCTGACCTTTGTGCCTACCTCTGACCAAAGGGCTTCCGGCTG
 CTCCTGGCTAGCCCCAGCGCTTGCCTCAAACCTTCCAAGAGAAGAAAGAGGGTTATGGGGAGGCAG
 CCCAGTTTGTGGTTAAAACACCAGGCAAAAGAAGCATTAAATGAGATGCTGGCAGACAGACACCTCCA
 GAGAGACAATCTTCATGCACAGAAATGCATTGACTGGAACCGTAATGTGCTGAAGCGGGAGCTGGGCCTG
 GCAGAGAGTGACATCGTGGACATTCCCCAGCTTCTTCTGAAAACCTTCTACGCGGAAGCCTTCTTCC
 CAGACATGGTTAACATGGTGGTCTTAGGCAAGTACCTGGGCATCCCCAAGCCCTACGGGCCATCATCAA
 TGGCCGCTGCTGCCTGGAGGAGAAGGTGCAAGTCCCTGCTGGAGCCTCTGGGCCTGCACTGCATCTTATT
 GATGACTACTTGTCTACCACGAGCTGCAGGGGAGATCCACTGTGGCACCACGTGCGCAGGAAGCCCT
 TTCCTTCAAATGGTGGAAACATGGTGCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG213501 representing NM_013358
Red=Cloning site Green=Tags(s)

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MAPKRVVQLSLKMPHACVVGVEAHVDIHSVDPKGANSFRVSGSSGVEVFMVYNRTRVKEPIGKARWPL
DTDADMVVSVGTASKELKDFKVRVSYFGEQEDQALGRSVLYLTGVDISLEVDTRTKGKVKRSQGDKKTWR
WGPEGYGAILLVNCDRDNHRSAPDLTHSWLMSLADLQDMSPMLLSCNGPDKLFDHSHKLVLVNVPFSDSKR
VRVFCARGGNSLSDYKQVLGPQCLSYEVERQPGEQEIKFYVEGLTFPDADFLGLVSLVSLVDPGTLPEV
TLFTDTVGFMAPWIMTPNTQPPEELYVCRVMDTHGSNEKFLEDMSYLTLLKANCKLTICPQVENRNRWI
QDEMEFGYIEAPHKSFPPVFDSPRNRGLKDFPYKRILGPDFGYVTREIPLPGPSSLDSFGNLDVSPPVTV
GGTEYPLGRILIGSSFPKSGGRQMARAVRNFLKAQQVQAPVELYSDWLSVGHVDEFLTFVPTSDQKGFRL
LLASPSACLKLFQEKKEEGYGEAAQFDGLKHQAKRSINEMADRHLQRDNLHAQKCIDWNRNVLKRELGL
AESDIVDIPQLFFLKNFYAEAFFPDMVNMVVLGKYLGIKPYGPIINGRCCLLEEKVQSLLEPLGLHCIFI
DDYLSYHELQGEIHCCTNVRKPFPPFKWWMVMP
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_013358

ORF Size: 1989 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_013358.3](#)

RefSeq Size: 2711 bp

RefSeq ORF: 1992 bp

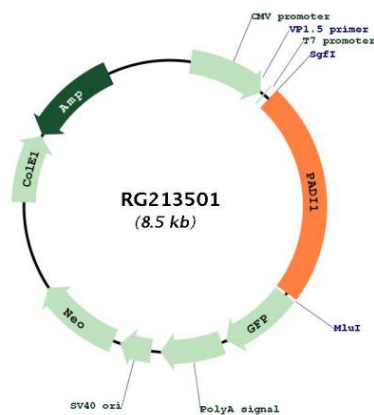
Locus ID: 29943

UniProt ID: [Q9ULC6](#)

Cytogenetics: 1p36.13

Gene Summary: 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. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG213501