

Product datasheet for **MC220244**

Padi4 (NM_011061) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Padi4 (NM_011061) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Padi4
Synonyms:	Pad4; Pdi4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >NM_011061.2
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCAAAGCGCGGTGATCCACGTGGCCCCGAGCAGCCACTCACGCCGTGTGTGTGGTGGGCACAG
 CGACCCCGCTGGATGTCCGCGGTTCTGCTCCTAAGGGCTACACAACCTTCGGCATCACAGCCTCTCCAGG
 AGTCATCGTAGATGTCATCCATGGTCTCCAGTCAAGAAGAGTACCATGGGGCCTCCAAATGGCCTCTG
 GACCCCTGAGCTGGAGGTGACCCTACAGGTGAAAGCAGCCAGCAGCAGAACAGATGATGAAAAGTTTCGAG
 TTTCACTATGGACCAAGACCTCCCAAGTCCAGCCCTGATCTACATCACTGGGGTGGAACTGTCCCT
 GAGCGCAGATGTACCCGCACAGGCAGAGTGAAGCCAGCCCAAGCCGGGAAGGATCAGAGCACCTGGACC
 TGGGGCCCGGGCGCCGTGGCGCCATCCTGTTGGTGAAGTGTGACAAAGAGGACCCTCAGGCCTCCGGAA
 TGGACTTTGAGGATGACAAGATCTTGGACAACAAAGACCTGCAGGACATGTCTCCAATGACCCTAAGCAC
 GAAGACGCCCAAAGACTTCTTTGAAAAGTATCAGCTGGTGTGGAGGTGCCCAAGCCAAGATGAACAGA
 GTGAGAGTCTTCCGGGCCACACGGGGCAAACCTGCCGTCCCGGTACAAGGTGGCCCTGGGACCACAACAGT
 TCTCGTATTGCCTGGAGCTGCCCGGGCCAGCACAGCAGACTTCTATGTGGAAGGCCTTGCTTTCCC
 AGACGCAGACTTCAAAGGGCTCATTCCCCTCACCATCTCCCTGCTGGACAAGTCTAACCCGGAGCTCCCC
 GAGGCCCTGGTGTCCAAGACAGTGTGACGTTCCGTGTGGCCCCCTGGATCATGACCCCAACACTCAGC
 CCCCCAGGAGGTGTACGTGTGCAGGGTTTCTGACAATGAAGACTTCTAAAGTCACTAGCTACTCTGAC
 CAAGAAAGCCAAGTGAAGCTGACTGTGTGCCCGAGGAGGAGAATATAGATGACCAATGGATGCAGGAC
 GAAATGGAGATTGGCTACATCCAGGCCACACAAGACGCTGCCTGTGGTCTTTGACTCCCCGAGGGACA
 GAGGCCTGAAGGATTTCCCTGTCAAGCGAGTTATGGGTCCAAATTTTGGCTATGTGACCCGAAAGCTCTA
 TATGTCAGAGCTCACTGGGCTGGATGCCTTTGGGAACCTGGAGGTGAGTCCCCCAGTCACTGTGAGAGG
 AAGGAGTACCCACTGGGCAGAATTCTCATCGGGAATAGCGGTTACTCCAGCAGCGAGAGCCGGGACATGC
 ACCAGGCCCTGCAGGACTTCTGAGCGCCAGCAGGTGCAGGCCCCCGTGGAGCTCTTCTCCGATTGGCT
 CTTTGTGGGTACGTGGATGAGTTCTTGTAGCTTTGTCCAGCGCGGGACAAGCAGGGTTTTCGGCTGCTG
 CTGTCCAGCCCCAGAGCTTGCTATCAGCTGTTCCAGGAGCTACAGAGCCAGGGCCACGGGGAGGCGACAC
 TGTTCCGAAGGACTCAAGAGGAAAAGGCAGACAATCAATGAAATTTCTGCAACAAGAAATTAAGAGACCA
 GAATGCCTATGTGGAGAGCTGTATCGACTGGAACCGGGCGGTGCTGAAGCGGGAGCTGGCCTGGCAGAG
 GGTGACATCATCGACATTCGCAGCTCTCAAGCTCGCGGGAAGTCCAGAGGGAAGTCTAAGGCCCAGG
 CCTTCTTCCCAAACATGGTGAACATGCTGGTCCCTGGGCAAGTACCTGGGCATCCCCAAGCCCTTTGGGCC
 CATCATCGATGGCCACTGCTGCCTGGAGGAGGAGTGCCTTCCACCTGGAGCCGCTGGGTCTGCACTGC
 ACCTTCATCAACGACTTCTACACCTACCAGTGTACAACGGGGAGGTTCACTGTGGCACCAATGTGCGCA
 GGAAGCCCTTACCTTCAAGTGGTGGCACATGGTGCCTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/ja1503_e07.zip

Restriction Sites: SgfI-MluI

ACCN: NM_011061

Insert Size: 2001 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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:	<ol style="list-style-type: none">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_011061.2 , NP_035191.2
RefSeq Size:	2640 bp
RefSeq ORF:	2001 bp
Locus ID:	18602
UniProt ID:	Q9Z183
Cytogenetics:	4 72.34 cM
Gene Summary:	<p>Catalyzes the citrullination/deimination of arginine residues of proteins such as histones, thereby playing a key role in histone code and regulation of stem cell maintenance. Citrullinates histone H1 at 'Arg-54' (to form H1R54ci), histone H3 at 'Arg-2', 'Arg-8', 'Arg-17' and/or 'Arg-26' (to form H3R2ci, H3R8ci, H3R17ci, H3R26ci, respectively) and histone H4 at 'Arg-3' (to form H4R3ci). Acts as a key regulator of stem cell maintenance by mediating citrullination of histone H1: citrullination of 'Arg-54' of histone H1 (H1R54ci) results in H1 displacement from chromatin and global chromatin decondensation, thereby promoting pluripotency and stem cell maintenance. Promotes profound chromatin decondensation during the innate immune response to infection in neutrophils by mediating formation of H1R54ci. Citrullination of histone H3 prevents their methylation by CARM1 and HRMT1L2/PRMT1 and represses transcription. Citrullinates EP300/P300 at 'Arg-2142', which favors its interaction with NCOA2/GRIP1.[UniProtKB/Swiss-Prot Function]</p>