

Product datasheet for **RC222354**

PDX1 (NM_000209) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDX1 (NM_000209) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDX1
Synonyms:	GSF; IDX-1; IPF1; IUF1; MODY4; PAGEN1; PDX-1; STF-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC222354 representing NM_000209 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAACGGCGAGGAGCAGTACTACGCGGCCACGCAGCTTTACAAGGACCCATGCGCGTTCCAGCGAGGCC
 CGGCGCCGGAGTTCAGCGCCAGCCCCCTGCGTGCCTGTACATGGGCGGCCAGCCCCGCGCGCCGCGC
 GCACCCGTTCCCTGGCGCCCTGGGCGCGCTGGAGCAGGGCAGCCCCCTGACATCTCCCGTACGAGGTG
 CCCCCCTCGCGACGACCCGCGGTGGCGCACCTTACCACCACCTCCCGGCTCAGCTCGCGCTCCCCC
 ACCCGCCGCGGGCCCTTCCCGGAGGGAGCCGAACCGGGCGTCTGGAGGAGCCCAACCGCGTCCAGCT
 GCCTTTCCCATGGATGAAGTCTACCAAAGCTCACGCGTGAAAGGCCAGTGGGCAGGCGGCGCTACGCT
 GCGGAGCCGGAGGAGAACAAGCGGACGCGCACGGCTACACGCGCGCACAGCTGCTAGAGCTGGAGAAGG
 AGTTCCTATTCAACAAGTACATCTACGGCCGCGCCGGGTGGAGCTGGCTGTATGTTGAACTTGACCGA
 GAGACACATCAAGATCTGGTTCCAAAACCGCCGATGAAGTGAAAAAGGAGGAGACAAGAAGCGCGGC
 GGCGGGACAGCTGTGGGGGTGGCGGGTCCGGAGCCTGAGCAGGACTGCGCCGTGACCTCCGGCGAGG
 AGCTTCTGGCGCTGCCGCCGCCGCCGCCCGGAGGTGCTGTGCCGCCGCTGCCCCGTTGCCGCCG
 AGAGGGCCGCTGCCGCTGGCTTAGCGCGTCGCCACAGCCCTCCAGCGTCGCGCTCGCGGCCGCGAG
 GAACACGA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTAA


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Protein Sequence: >RC222354 representing NM_000209
 Red=Cloning site Green=Tags(s)

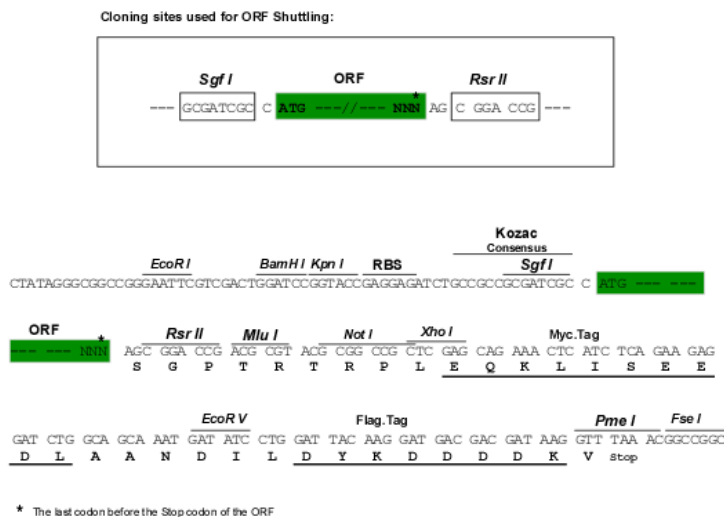
MNGEEQYYAATQLYKDPCAFQRGPAPEFSASPPACLYMGRQPPPPPPHPFPGALGALEQGSPDISPYEV
 PPLADDPVAHLHHHPAQLALPHPPAGPFPEGAEPGVLEENRVQLPFPWMKSTKAHAWKGQWAGGAYA
 AEPEENKRTRTAYTRAQLLELEKEFLFNKYISRPRVELAVMLNLTERHIKIWFQNRMRMKWKKEEDKKRG
 GGTAVGGGGVAEPEQDCAVTSGEELLALPPPPPGGAVPPAAPVAAREGRLEPPGLSASPQSSVAPRRPQ
 EPR

SGP^{TRTRRL}EQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6189_a09.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_000209

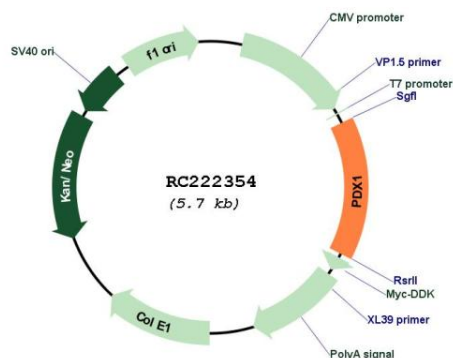
ORF Size: 849 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

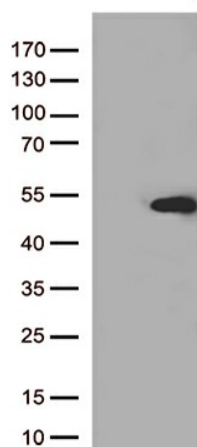
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000209.4
RefSeq Size:	1525 bp
RefSeq ORF:	852 bp
Locus ID:	3651
UniProt ID:	P52945
Cytogenetics:	13q12.2
Protein Families:	Embryonic stem cells, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Transcription Factors
Protein Pathways:	Maturity onset diabetes of the young, Type II diabetes mellitus
MW:	30.6 kDa
Gene Summary:	The protein encoded by this gene is a transcriptional activator of several genes, including insulin, somatostatin, glucokinase, islet amyloid polypeptide, and glucose transporter type 2. The encoded nuclear protein is involved in the early development of the pancreas and plays a major role in glucose-dependent regulation of insulin gene expression. Defects in this gene are a cause of pancreatic agenesis, which can lead to early-onset insulin-dependent diabetes mellitus (IDDM), as well as maturity onset diabetes of the young type 4 (MODY4). [provided by RefSeq, Aug 2017]

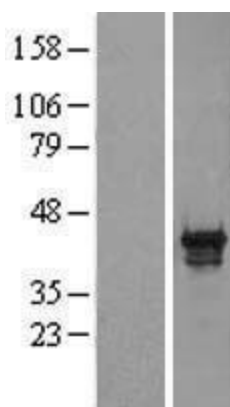
Product images:



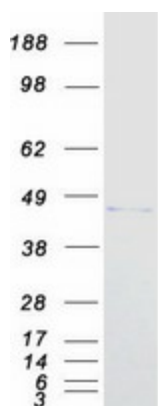
Circular map for RC222354



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PDX1 (Cat# RC222354, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PDX1 (Cat# [TA500038]).



Western blot validation of overexpression lysate (Cat# [LY400074]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222354 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDX1 protein (Cat# [TP322354]). The protein was produced from HEK293T cells transfected with PDX1 cDNA clone (Cat# RC222354) using MegaTran 2.0 (Cat# [TT210002]).