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Product datasheet for RC210356

PON1 (NM_000446) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PON1 (NM_000446) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PON1
Synonyms:	ESA; MVCD5; PON
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC210356 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGAAGCTGATTGCGCTCACCCTCTTGGGGATGGGACTGGCACTCTTCAGGAACCACCAGTCTTCTT
ACCAAACACGACTTAATGCTCTCCGAGAGGTACAACCCGTAGAACTTCCTAACTGTAATTTAGTTAAAGG
AATCGAAACTGGCTCTGAAGACTTGGAGATACTGCCTAATGGACTGGCTTTCATTAGCTCTGGATTAAAG
TATCCTGGAATAAAGAGCTTCAACCCCAACAGTCCTGGAAAAATACTTCTGATGGACCTGAATGAAGAAG
ATCCAACAGTGTTGGAATTGGGGATCACTGGAAGTAAATTTGATGTATCTTCATTTAACCCTCATGGGAT
TAGCACATTCACAGATGAAGATAATGCCATGTACCTCCTGGTGGTGAACCATCCAGATGCCAAGTCCACA
GTGGAGTTGTTTAAATTTCAAGAAGAAGAAAAATCGCTTTTGCATCTAAAAACCATCAGACATAAACTTC
TGCCTAATTTGAATGATATTGTTGCTGTGGGACCTGAGCACTTTTATGGCACAAATGATCACTATTTTCT
TGACCCCTACTTACAATCCTGGGAGATGTATTTGGGTTTAGCGTGGTCGTATGTTGTCTACTATAGTCCA
AGTGAAGTTCGAGTGGTGGCAGAAGGATTTGATTTTGCTAATGGAATCAACATTTCACCCGATGGCAAGT
ATGTCTATATAGCTGAGTTGCTGGCTCATAAGATTCATGTGTATGAAAAGCATGCTAATTGGACTTTAAC
TCCATTGAAGTCCCTTGACTTTAATACCCTCGTGGATAACATATCTGTGGATCCTGAGACAGGAGACCTT
TGGGTTGGATGCCATCCCAATGGCATGAAAATCTTCTTCTATGACTCAGAGAATCCTCCTGCATCAGAGG
TGCTTCGAATCCAGAACATTCTAACAGAAGAACCTAAAGTGACACAGGTTTATGCAGAAAATGGCACAGT
GTTGCAAGGCAGTACAGTTGCCTCTGTGTACAAAGGGAAACTGCTGATTGGCACAGTGTTTCACAAAGCT
CTTTACTGTGAGCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC210356 protein sequence
Red=Cloning site Green=Tags(s)

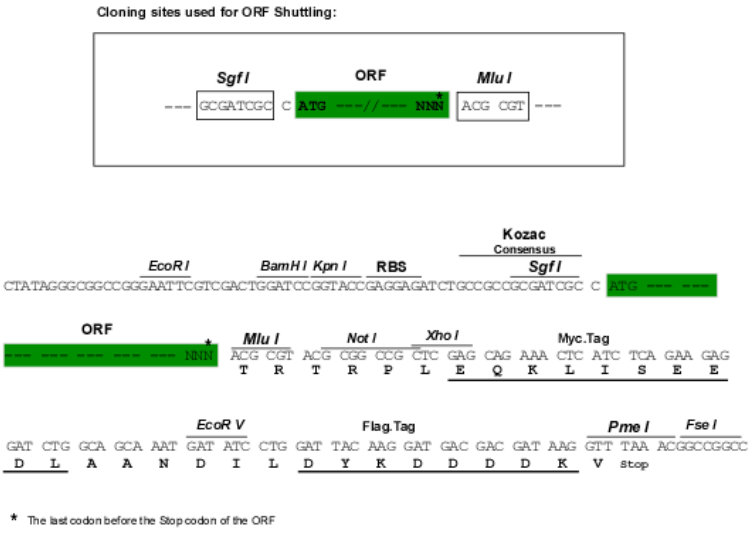
MAKLIALTLLGMGLALFRNHQSSYQTRLNALREVQPVELPNCNLVKGIETGSEDLEILPNGLAFISSGLK
YPGIKSFNPNSPGKILLMDLNEEDPTVLELGITGSKFDVSSFNPHGISTFTDEDNAMYLLVVNHPDAKST
VELFKFQEEEKSLLHLKTIRHKLLPNLNDIVAVGPEHFYGTNDHYFLDPYLQSWEMYLGLAWSYVVYYSP
SEVRVVAEGFDFANGINISPDGKYVYIAELLAHKIHVYEKHANWTLTPLKSLDFNTLVDNISVDPETGDL
WVGCHPNGMKIFFYDSENPPASEVLRIQNILTEEPKVTQVYAENGTVLQGSTVASVYKGKLLIGTVFHKA
LYCEL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6006_e08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000446

ORF Size: 1065 bp

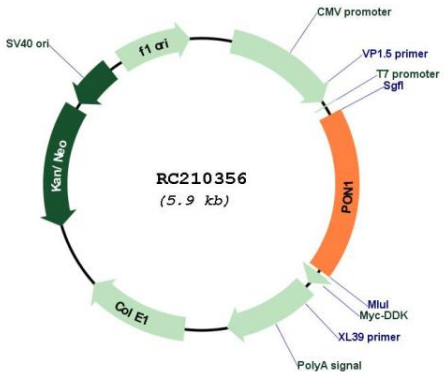
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

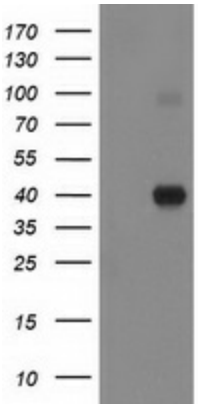
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000446.7
RefSeq Size:	1769 bp
RefSeq ORF:	1068 bp
Locus ID:	5444
UniProt ID:	P27169
Cytogenetics:	7q21.3
Domains:	Arylesterase
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Metabolic pathways
MW:	39.7 kDa
Gene Summary:	This gene encodes a member of the paraoxonase family of enzymes and exhibits lactonase and ester hydrolase activity. Following synthesis in the kidney and liver, the enzyme is secreted into the circulation, where it binds to high density lipoprotein (HDL) particles and hydrolyzes thiolactones and xenobiotics, including paraoxon, a metabolite of the insecticide parathion. Polymorphisms in this gene may be associated with coronary artery disease and diabetic retinopathy. The gene is found in a cluster of three related paraoxonase genes on chromosome 7. [provided by RefSeq, Aug 2017]

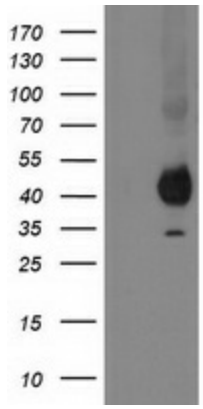
Product images:



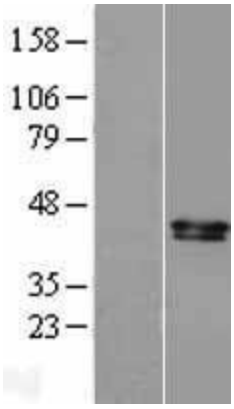
Circular map for RC210356



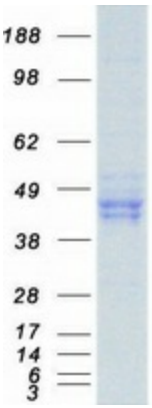
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY PON1 (RC210356, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PON1 ([TA502528]). Positive lysates [LY400156] (100ug) and [LC400156] (20ug) can be purchased separately from OriGene.



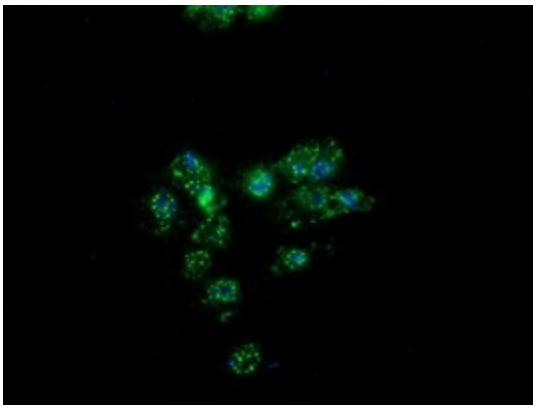
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PON1 (Cat# RC210356, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PON1(Cat# [TA502611]). Positive lysates [LY400156] (100ug) and [LC400156] (20ug) can be purchased separately from OriGene.



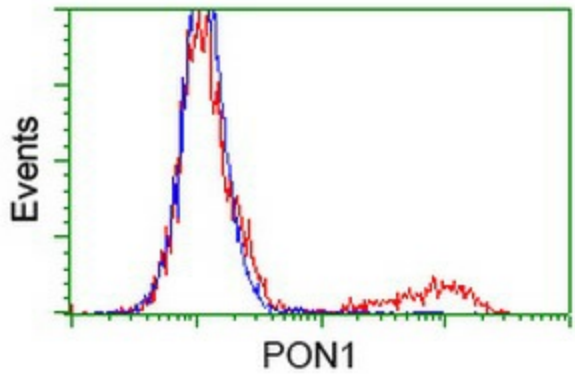
Western blot validation of overexpression lysate (Cat# [LY400156]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210356 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PON1 protein (Cat# [TP310356]). The protein was produced from HEK293T cells transfected with PON1 cDNA clone (Cat# RC210356) using MegaTran 2.0 (Cat# [TT210002]).



Anti-PON1 mouse monoclonal antibody ([TA502528]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY PON1 (RC210356).



HEK293T cells transfected with either RC210356 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-PON1 antibody ([TA502528]), and then analyzed by flow cytometry.