

Product datasheet for RC204160

Prostaglandin dehydrogenase 1 (HPGD) (NM_000860) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prostaglandin dehydrogenase 1 (HPGD) (NM_000860) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Prostaglandin dehydrogenase 1
Synonyms:	15-PGDH; PGDH; PGDH1; PHOAR1; SDR36C1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204160 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCACGTGAACGGCAAAGTGGCGCTGGTGACCGCGCGGCTCAGGGCATAGGCAGAGCCTTTGCAGAGG
CGCTGCTGCTTAAGGGCGCCAAGGTAGCGCTGGTGGATTGGAATCTTGAAGCAGGTGTACAGTGTAAGC
TGCCCTGGATGAGCAGTTTGAACCTCAGAAGACTCTGTTTCATCCAGTCCGATGTGGCTGACCAGCAACA
CTGAGAGACACTTTTAGAAAAGTTGTAGACCACCTTGAAGACTGGACATTTTGGTCAATAATGCTGGAG
TGATAATGAGAAAACTGGAAAAAATCTGCAATTAATTTGGTTTCTGTTATCAGTGGAACCTATCT
TGGTTTGGATTACATGAGTAAGCAAAATGGAGGTGAAGCGGCATCATTATCAATATGTCATCTTTAGCA
GGACTCATGCCGTTGCACAGCAGCCGTTTATTGTGCTCAAAGCATGGCATAGTTGGATTACACGCT
CAGCAGCGTTGGCTGCTAATCTTATGAACAGTGGTGTGAGACTGAATGCCATTTGTCCAGGCTTTGTTAA
CACAGCCATCCTTGAATCAATTGAAAAAGAAAAACATGGGACAATATATAGAATATAAGGATCATATC
AAGGATATGATTAATACTATGGAATTTGGACCCACCATTGATTGCCAATGGATTGATAAACTCATTG
AAGATGATGCTTTAAATGGTGCTATTATGAAGATCACAACCTTAAGGGAATTCATTTTCAAGACTATGA
TACAACCTCATTCAAGCAAAAACCCAA

ACGCGTACGCGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204160 protein sequence
 Red=Cloning site Green=Tags(s)

MHVNGKVALVTGAAQIGRAFAEALLLKGAVALVDWNLEAGVQCKAALDEQFEPQKTLFIQCDVADQQQ
 LRDTFRKVVDFHGRDLILVNNAGVNNNEKNWEKTLQINLVSVISGTYLGLDYMSKQNGGEGGIIINMSSLA
 GLMPVAQQPVYCAKSHGIVGFTRSAALANLMSGVRLNAICPGFVNTAILESIEKEENMGQYIEYKDHI
 KDMIKYYGILDPLIANGILITLIEDDALNGAIMKITTSGIHFQDYDTPFQAKTQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6058_d06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_000860

ORF Size: 798 bp

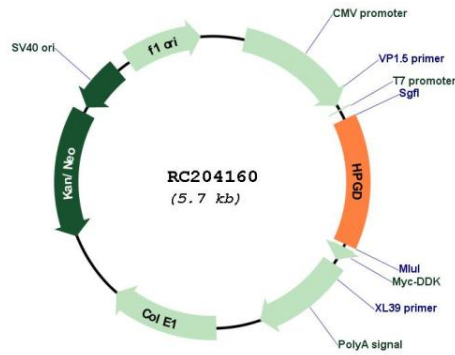
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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](#)

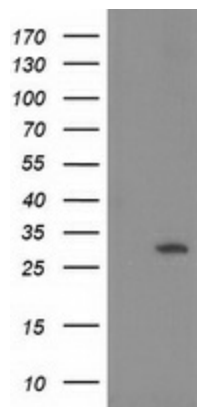
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
RefSeq:	NM_000860.6
RefSeq Size:	3044 bp
RefSeq ORF:	801 bp
Locus ID:	3248
UniProt ID:	P15428
Cytogenetics:	4q34.1
Domains:	adh_short
Protein Families:	Druggable Genome
MW:	29 kDa
Gene Summary:	This gene encodes a member of the short-chain nonmetalloenzyme alcohol dehydrogenase protein family. The encoded enzyme is responsible for the metabolism of prostaglandins, which function in a variety of physiologic and cellular processes such as inflammation. Mutations in this gene result in primary autosomal recessive hypertrophic osteoarthropathy and cranioosteoarthropathy. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2009]

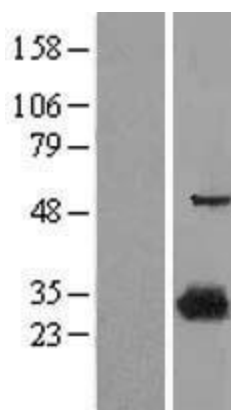
Product images:



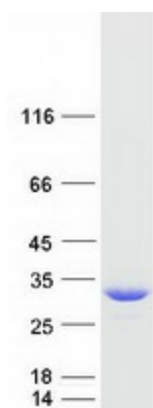
Circular map for RC204160



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HPGD (Cat# RC204160, 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-HPGD (Cat# [TA502561]). Positive lysates [LY400305] (100ug) and [LC400305] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400305]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204160 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HPGD protein (Cat# [TP304160]). The protein was produced from HEK293T cells transfected with HPGD cDNA clone (Cat# RC204160) using MegaTran 2.0 (Cat# [TT210002]).