

Product datasheet for **RG231810**

Prostaglandin dehydrogenase 1 (HPGD) (NM_001256305) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Prostaglandin dehydrogenase 1 (HPGD) (NM_001256305) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: HPGD
Synonyms: 15-PGDH; PGDH; PGDH1; PHOAR1; SDR36C1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG231810 representing NM_001256305
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCACGTGAACGGCAAAGTGCGCTGGTGACCGCGCGGCTCAGGGCATAGGCAGAGCCTTTGCAGAGG
CGCTGCTGCTTAAGGGCGCCAAGGTAGCGCTGGTGGATTGGAATCTTGAAGCAGGTGTACAGTGTAAGC
TGCCCTGGATGAGCAGTTTGAACCTCAGAAGACTCTGTTCCAGTCCGATGTGGCTGACCAGCAACAA
CTGAGAGACACTTTTAGAAAAGTTGTAGACCACCTTGAAGACTGGACATTTGGTCAATAATGCTGGAG
TGATAATGAGAAAACTGGAAAAACTCTGCAATTAATTTGGTTTCTGTTATCAGTGAACCTATCT
TGGTTTGGATTACATGAGTAAGCAAAATGGAGGTGAAGGCGGCATCATTATCAATATGTCATCTTAGCA
GCCACCAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG231810 representing NM_001256305
Red=Cloning site Green=Tags(s)

MHVNGKVALVTGAAQIGRAFAEALLLKGAQVALVDWNLEAGVQCKAALDEQFEPQKTLFIQCDVADQQQ
LRDTRKVVDFHGRDLILVNNAGVNEKNWEKTLQINLVSVISGYLGLDYMSKQNGEGGIIINMSSLA
AHH

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

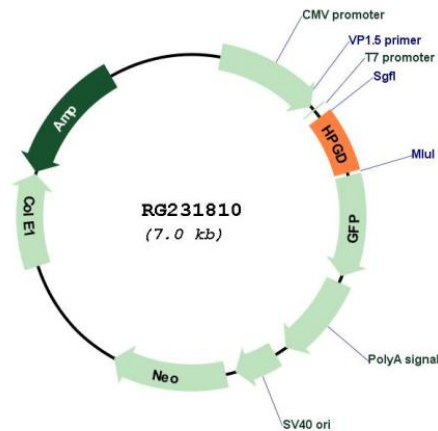


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Cloning Scheme:



Plasmid Map:



ACCN: NM_001256305

ORF Size: 429 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:	<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:	<u>NM_001256305.1</u> , <u>NP_001243234.1</u>
RefSeq Size:	2803 bp
RefSeq ORF:	432 bp
Locus ID:	3248
UniProt ID:	<u>P15428</u>
Cytogenetics:	4q34.1
Protein Families:	Druggable Genome
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]