

Product datasheet for **RG201729**

PGD (NM_002631) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PGD (NM_002631) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PGD
Synonyms:	6PGD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG201729 representing NM_002631
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCCCAAGCTGACATCGCGCTGATCGGATTGGCCGTCATGGCCAGAAGCTTAATTCTGAACATGAATG
 ACCACGGCTTTGTGGTCTGTGCTTTTAATAGGACTGTCTCCAAAGTTGATGATTTCTTGGCCAATGAGGC
 AAAGGGAACCAAAGTGGTGGGTGCCAGTCCCTGAAAGAGATGGTCTCCAAGCTGAAGAAGCCCCGGCGG
 ATCATCTCTGGTGAAGGCTGGCAAGCTGTGGATGATTTTCATCGAGAAATTGGTACCATTGTTGGATA
 CTGGTGACATCATCATTGACGGAGGAAATCTGAATATAGGGACACCACAAGACGGTGCCGAGACCTCAA
 GGCCAAGGAATTTTATTTGTGGGGAGCGGAGTCACTGGTGGAGAGGAAGGGGCCCGGTATGGCCCATCG
 CTCATGCCAGGAGGGAACAAAGAAGCGTGGCCCCACATCAAGACCATCTCCAAGCATTGCTGCAAAAAG
 TGGAACTGGAGAACCCTGCTGTGACTGGGTGGGAGATGAGGGAGCAGGCCACTTCGTGAAGATGGTGCA
 CAACGGGATAGAGTATGGGGACATGCAGCTGATCTGTGAGGCATACCACCTGATGAAAGACGTGCTGGGC
 ATGGCGCAGGACGAGATGGCCCAGGCCTTTGAGGATTGGAATAAGACAGAGCTAGACTCATTCTGATTG
 AAATCACAGCCAATATTCTCAAGTTCCAAGACCCGATGGCAAACACCTGCTGCCAAAGATCAGGGACAG
 CGCGGGGCAGAAGGGCACAGGAAGTGGACCGCCATCTCCGCCCTGGAATACGGCGTACCCGTACCCCTC
 ATTTGGAGAAGCTGTCTTTGCTCGGTGCTTATCATCTCTGAAGGATGAGAGAATTCAGCTAGCAAAAAGC
 TGAAGGGTCCCCAGAAGTCCAGTTTGTGGTATAAGAAATCATTCTGGAGGACATTCGGAAGGCACT
 CTACGCTTCCAAGATCATCTCTTACGCTCAAGGCTTTATGCTGCTAAGGCAGGCAGCCACCGAGTTTGGC
 TGGACTCTCAATTATGGTGGCATCGCCCTGATGTGGAGAGGGGGTGCATCATTAGAAGTGTATTCCTAG
 GAAAGATAAAGGATGCATTTGATCGAAACCCGGAACCTCAGAACCTCTACTGGAGCTCTTTTAAAGT
 AGCTGTTGAAAACCTGCCAGGACTCTGGCGGGCGGAGTCAAGCACTGGGGTCCAGGCTGGCATTCCCATG
 CCCTGTTTTACCACTGCCCTCTCCTTCTATGACGGGTACAGACATGAGATGCTTCCAGCCAGCCTCATCC
 AGGCTCAGCGGGATTACTTCGGGGCTCACACCTATGAACTCTTGGCCAAACCAGGGCAGTTTATCCACAC
 CAACTGGACAGGCCATGGTGGCACCGTGTATCTCGTCATAACAATGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG201729 representing NM_002631
 Red=Cloning site Green=Tags(s)

MAQADIALIGLAVMQNLILNMNDHGFVVCANRNTVSKVDDFLANEAKGTKVVGQAQSLKEMVSKLKKPRR
 IILLVKAGQAVDDFIEKLVPLLDTGDIIDGGNSEYRDTTRRCRDLKAKGILFVSGVSGGEEGARYGPS
 LMPGGNKEAWPHIKTIFQGIAAKVGTEPCDWWGDEGAGHFVKMVHNGIEYQDMQLICEAYHLMKDVLG
 MAQDEMAQAFEDWNKTELDSFLIEITANILKFQTDGKHLLPKIRDSAGQKGTGKWTASALEYGVPTL
 IGEAVFARCLSSLKDERIQASKKLKGPQKQFDGDKSFLEDIRKALYASKIISYAQGFMLLRQAATEFG
 WTLNYGGIALMWRGGCIIRSVFLGKIKDAFDRNPELQNLDDFFKSAVENCQDSWRRRAVSTGVQAGIPM
 PCFTTALSFYDGYRHEMLPASLIQAQRDYFGAHTYELLAKPGQFIHTNWTGHGGTVSSSSYNA

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_002631

ORF Size: 1449 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.

RefSeq: [NM_002631.4](#)

RefSeq Size: 1937 bp

RefSeq ORF: 1452 bp

Locus ID: 5226

UniProt ID: [P52209](#)

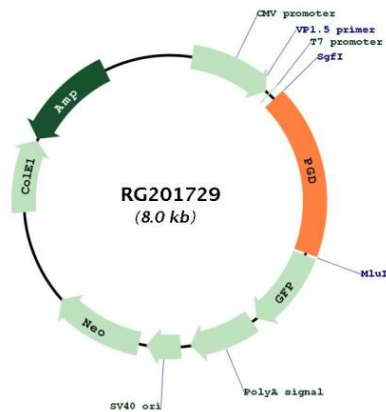
Cytogenetics: 1p36.22

Domains: 6PGD, NAD_binding_2

Protein Pathways: Glutathione metabolism, Metabolic pathways, Pentose phosphate pathway

Gene Summary: 6-phosphogluconate dehydrogenase is the second dehydrogenase in the pentose phosphate shunt. Deficiency of this enzyme is generally asymptomatic, and the inheritance of this disorder is autosomal dominant. Hemolysis results from combined deficiency of 6-phosphogluconate dehydrogenase and 6-phosphogluconolactonase suggesting a synergism of the two enzymopathies. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2015]

Product images:



Circular map for RG201729