

Product datasheet for **RC209890**

H6PD (NM_004285) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	H6PD (NM_004285) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	H6PD
Synonyms:	CORTRD1; G6PDH; GDH; H6PDH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209890 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTGGAATATGCTCATAGTGGCGATGTGCTTGGCCCTTCTGGGCTGCCTGCAAGCCAGGAGCTCCAGG
 GACATGTCTCCATAATCCTGCTGGGAGCAACTGGGGACCTGGCTAAGAAGTACTTATGGCAGGGACTGTT
 CCAGCTGTACCTGGATGAAGCGGGGAGGGGTACAGTTTTAGCTTCCATGGAGCTGCTCTGACAGCCCC
 AAGCAGGGTCAAGAGCTCATGGCCAAGGCCCTGGAATCCCTCTCCTGCCCAAGGACATGGCAGCCAGTC
 ACTGTGCAGAGCACAAGGATCAGTTCCTGCAGCTGAGCCAGTACCGCCAACTGAAGACGGCCGAGGACTA
 TCAGGCCCTGAACAAGGACATCGAGGCACAGCTCCAGCACGCAGGCCTCCGGGAGGCTGGCAGGATCTTC
 TACTTCTCAGTGCACCCCTTCGCCTATGAAGACATTGCCCGCAACATCAACAGTAGCTGCCGGCCAGGCC
 CGGGCGCCTGGCTGCGGGTTGCTCTTGAGAAACCTTTGGCCATGACCACTTCTCAGCCCAGCAGCTGGC
 CACAGAACTCGGGACCTTTTTCCAGGAGGAGAGATGTACCGGGTGGACCATTACTTAGGCAAGCAGGCT
 GTGGCACAGATCCTGCCTTTCCGAGACCAGAACCGAAGGCTTTGGACGGCCTCTGGAACCGGCACCATG
 TGGAGCGGGTGGAGATCATCATGAAAGAGACCGTGGATGCCGAAGGCCGACCCAGCTTCTATGAGGAGTA
 CGGTGTCAATTCGCGACGTCCTCCAGAACCATCTGACGGAGGTCTCACCTCGTGGCCATGGAGTGCC
 CACAATGTGACAGTGCAGGAGGCTGTGCTGCGGCACAAGCTTCAGGTCTTCCAGGCGCTGCGGGGCTGC
 AGAGGGGAGTGCCTGCTGGCCAGTACCAGTCTTACAGTGAGCAGGTGCGCAGAGAGCTGCAGAAGCC
 AGACAGCTTCCACAGCCTGACGCCGACCTTCGACGCCCTCCTAGTGCACATTGACAACCTTCGCTGGGAG
 GGCGTGCCTTTCATCCTGATGTCTGGCAAAGCCTTGACGAGAGAGTGGGCTACGCTCGGATCTTGTTC
 AGAACCGGCTGCTGTGTGACAGCGAAAAGCACTGGCCCGCGGCGCAGAGCCAGTGCCTGCCCGGCA
 GCTCGTCTTCCACATCGGCCATGGCGACCTGGGCAGCCCTGCCGTGCTGGTTCAGCAGGAACCTGTTCAAG
 CCTCCCTGCCCTCCAGCTGGAAGGAAATGGAGGGACCACCTGGGCTCCGCCCTTTTCGGCAGCCCTCTGT
 CCGATTACTACGCCTACAGCCCTGTGACGAGCGGGACGCCCACTCCGTCTTATCCCATATCTTCCA
 TGGCCGGAAGAATTTCTTCATCACACAGAGAACTTGCTGGCCTCCTGGAACCTTCTGGACCCCTCTGCTG
 GAGAGCCTGGCCATAAGGCCCCACGCCTCTACCCTGGAGGAGCTGAGAATGGCCGTCTGTTGGACTTTG
 AGTTCAGTAGCGCCGGTTGTTCTTTCCAGCAGCAGCCGGAGCAGCTGGTGCCAGGGCCAGGGCCGGC
 CCCAATGCCAGTGACTTCCAGGTCTCAGGGCCAAGTACCGAGAGAGCCCGCTGGTCTCCGCCTGGTCC
 GAGGAGCTGATCTAAGCTGGTAATGACATCGAGGCCACCGCTGTGCGAGCCGTGCGGCGCTTTGGCC
 AGTTCACCTGGCACTGTGCGGGGGCTCGAGCCCGTGGCCCTGTTCAGCAGCTGGCCACGGCGCCTA
 TGGCTTCCCTGGGCCACACGCACCTGTGGCTGGTTGACGAGCGCTGCGTCCCCTCTCAGACCCGGAG
 TCCAACCTCCAGGGCCTGCAGGCCACCTGCTGCAGCAGTCCGGATCCCCTACTACAACATCCACCCCA
 TGCTGTGCACCTGCAGCAGCGGCTCTGCGCCGAGGAGGACCAGGGCGCCAGATCTATGCCAGGGAGAT
 CTCAGCCCTGGTGGCCAACAGCAGCTTCGACCTGGTGTGCTGGGATGGGTGCCGACGGGCACACAGCC
 TCCCTCTTCCACAGTCACCACTGGCCTGGATGGCGAGCAGCTGGTCTGCTGACCACGAGCCCTCCC
 AGCCACACCGCCGATGAGCCTTAGCCTGCCTCTCATCAACCGCCCAAGAAGGTGGCAGTCTGGTTCAT
 GGGCAGGATGAAGCGTGAGATCACACGCTGGTGGCCGGTGGCCATGAGCCCAAGAAGTGGCCCATC
 TCGGGTGTCTGCCCACTCCGGCCAGCTGGTGTGGTACATGGACTACGACGCCCTTCTGGGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC209890 protein sequence
Red=Cloning site Green=Tags(s)

MWNMLIVAMCLALLGCLQAQELQGHVSIILLGATGDLAKKYLWQGLFQLYLDEAGRHSFSFHGAALTAP
KQGQELMAKALESLSCPDMAPSHCAEHKDQFLQLSQYRQLKTAEDYQALNKDIEAQLQHAGLREAGRIF
YFSVPPFAYEDIARNINSSCRPGPGAWLRVLEKPFGHDHFSQQQLATELGTFQEEEMYRVDHYLGKQA
VAQILPFRDQNRKALDGLWNRHHVERVEIIMKETVDAEGRTSFYEEYGVIRDVLQNHLEVLTLVAMELP
HNVSSAEAVLRHKLQVFQALRGLQRGSVAVGQYQSYSEQVRRELQKPDFHSLTPTFAAVLVHIDNLRWE
GVPFILMSGKALDERVGYARILFKNQACCVQSEKHAAAAQSQCCLPRQLVFHIGHDLGSPAVLVSRLFR
PSLPSSWKEMEGPPGLRFLGSPVSDYYAYSPVQERDAHSVLLSHIFHGRKNFFITTENLLASWNFWTPLL
ESLAHKAPRLYPGGAENGRLLDFEFSSGRLFFSQQQPEQLVPGPGPAMPSPDFQVLRKYRESPLVSAWS
EELISKLANDIEATAVRVRRFGQFHLALSGGSSPVALFQQLATAHYGFPWAHTHLWLVDERCPLSDPE
SNFQGLQAHLLQHVRIPYYNIHPMPVHLQQRCAEEDQGAQIYAREISALVANSSFDLVLLGMGADGHTA
SLFPQSPTGLDGEQLVVLTTSPSQPHRRMSLSLPLINRAKKVAVLVMGRMKREITTLVSRVGHEPKKWI
SGVLPHSGQLVWYMDYDAFLG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6155_g10.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:


ACCN: NM_004285

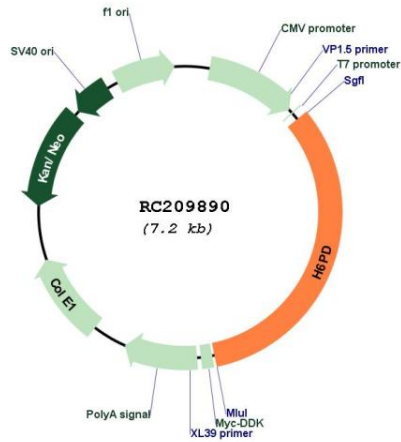
ORF Size: 2373 bp

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.

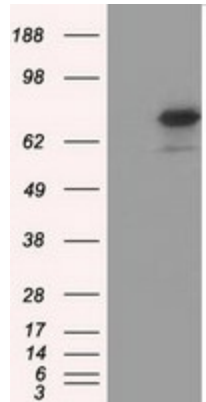
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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_004285.4
RefSeq Size:	9117 bp
RefSeq ORF:	2376 bp
Locus ID:	9563
UniProt ID:	O95479
Cytogenetics:	1p36.22
Domains:	G6PD, Glucosamine_iso
Protein Pathways:	Metabolic pathways, Pentose phosphate pathway
MW:	88.9 kDa
Gene Summary:	There are 2 forms of glucose-6-phosphate dehydrogenase. G form is X-linked and H form, encoded by this gene, is autosomally linked. This H form shows activity with other hexose-6-phosphates, especially galactose-6-phosphate, whereas the G form is specific for glucose-6-phosphate. Both forms are present in most tissues, but H form is not found in red cells. [provided by RefSeq, Jul 2008]

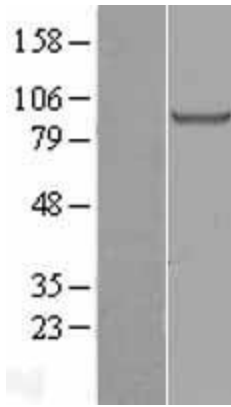
Product images:



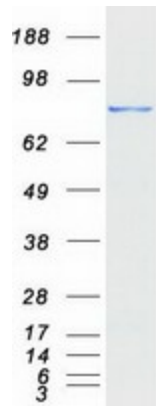
Circular map for RC209890



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY H6PD (Cat# RC209890, 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-H6PD (Cat# [TA501257]). Positive lysates [LY401369] (100ug) and [LC401369] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401369]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209890 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified H6PD protein (Cat# [TP309890]). The protein was produced from HEK293T cells transfected with H6PD cDNA clone (Cat# RC209890) using MegaTran 2.0 (Cat# [TT210002]).