

Product datasheet for **RC221178**

HKDC1 (NM_025130) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HKDC1 (NM_025130) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HKDC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221178 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTTTGGCGTCCACTTGATGGCATTCTTACTTCAGCAAGCTGAAGGAGGACCAGATCAAGAAGGTGGACA
 GGTTCCTGTATCACATGCGGCTCTCCGATGACACCCTTTTGACATCATGAGGCGGTTCCGGCTGAGAT
 GGAGAAGGGCCTGGCAAAGGACACCAACCCACGGCTGCAAGTGAAGATGTTGCCACCTTCGTCAGGGCC
 ATCCCGATGGTCCGAAAATGGGGAGTTCCTTTCCCTGGATCTCGGAGGGTCCAAGTTCGAGTGTGA
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 AATCATCCGCGGGAACGGCACAGAGCTGTTTGAATATGTAGTACTGTCTGGCAGATTTTCATGAAGACC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAAGTTTAA

Protein Sequence: >RC221178 protein sequence
Red=Cloning site Green=Tags(s)

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MFAVHLMFYFSKLIKEDQIKKVDRLFYHMRLSDDTLDDIMRRFRAEMEKGLAKDNTPTAAVKMLPTFVRA
IPDGSSENGEFLSLDLGSGKFRVLKVQVAEEGKRHVQMESQFYPTPNEIIRGNGTELFYVADCLADFMKT
KDLKHKKLPLGLTFSFPCRQTKLEEGVLLSWTKKFKARGVQDQDVTVSRLTKAMRRHKMDVDILALVNDT
VGTMMTCAYDDPYCEVGVIIIGTGNACYMEDMSNIDLVEGDEGRMCINTEWGAFGDDGALEDIRTEFDRE
LDLGSLNPGKQLFEKMISSGLYLGLVRLILLKMAKAGLLFGGEKSSALHTKGGIETRHAAMEKYKEGLA
NTRTEILVDLGLPESEADCIAVQHVCTIVSFRSANLCAAALAAAILTRLRENKVERLRTTVGMDGTYKIH
PQYPKRLHKVVRKLVPSCDVRFLLSESGSTKGAAMVTAVASRVQAQRKQIDRVLALFQLTREQLVDVQAK
MRAELEYGLKKKSHGLATVRMLPTYVCGLPDGTEKGFALDLGGTNFRVLLVKIRSGRRSVRMYNKIFA
IPLEIMQGTGEELFDHIVQCIADFLDYMGLKGASLPLGFTFSFPCRQMSIDKGTIGWTKGFKATDCEGE
DVVDMLREAIKRRNEFDLDIVAVVNDTVGTMTCGYEDPNCEIGLIAGTGSNMCYEMDRNIEMVEGEGE
KMCINTEWGGFGDNGCIDDIRTRYDTEVDEGSLNPGKQRYEKMTSGMYLGEIVRQILIDLTKQGLLFRGQ
ISERLRTRGIFETKFLSQIESDRLLALLQVRRILQQLGLDSTCEDSIVVKEVCGAVSRRAAQLCGAGLAAI
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QQAQKEN
    
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6689_f06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



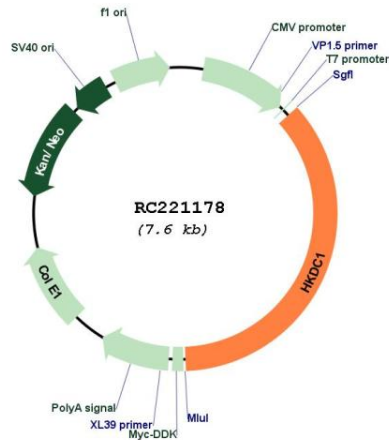
* The last codon before the Stop codon of the ORF

ACCN: NM_025130

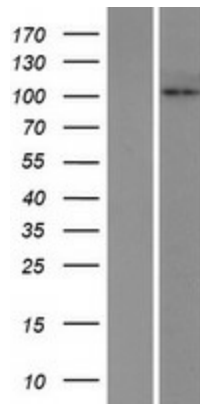
ORF Size:	2751 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional 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.</p> <p>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</p>
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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_025130.3 , NP_079406.3
RefSeq Size:	3719 bp
RefSeq ORF:	2754 bp
Locus ID:	80201
UniProt ID:	Q2TB90
Cytogenetics:	10q22.1
Domains:	hexokinase
Protein Families:	Druggable Genome
MW:	102.5 kDa

Gene Summary:

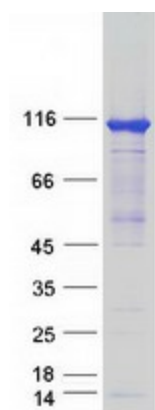
This gene encodes a member of the hexokinase protein family. The encoded protein is involved in glucose metabolism, and reduced expression may be associated with gestational diabetes mellitus. High expression of this gene may also be associated with poor prognosis in hepatocarcinoma. [provided by RefSeq, Sep 2016]

Product images:


Circular map for RC221178



Western blot validation of overexpression lysate (Cat# [LY410883]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221178 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HKDC1 protein (Cat# [TP321178]). The protein was produced from HEK293T cells transfected with HKDC1 cDNA clone (Cat# RC221178) using MegaTran 2.0 (Cat# [TT210002]).