

Product datasheet for **RC200023**

DCXR (NM_016286) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: DCXR (NM_016286) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: DCXR
Synonyms: DCR; HCR2; HCRII; KIDCR; P34H; PNTSU; SDR20C1; XR
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC200023 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGCTGTTCTCGCGGGCCCGGGTCTGGTACCAGGGCAGGCAAAGGTATAGGGCGGGCACGG
 TCCAGGCGCTGCACGCGACGGGCGCGGGTGGTGGCTGTGAGCCGGACTCAGGCGGATCTTGACAGCCT
 TGTCCGCGAGTGCCCGGGATAGAACCCGTGTGCGTGGACCTGGGTGACTGGGAGGCCACCGAGCGGGC
 CTGGGCAGCGTGGGCCCGTGGACCTGCTGGTGAACAACGCCGTGTCGCCCTGCTGCAGCCCTTCTGG
 AGGTCACCAAGGAGGCCTTTGACAGATCCTTTGAGGTGAACCTGCGTGGGTGATCCAGGTGTCGAGAT
 TGTGGCCAGGGGCTTAATAGCCCGGGAGTCCCAGGGGCCATCGTGAATGTCTCCAGCCAGTGTCCAG
 CGGCAGTAACCAACTAGCGTCTACTGCTCCACCAAGGGTGCCTGGACATGCTGACCAAGGTGATGG
 CCCTAGAGCTCGGGCCCCACAAGATCCGAGTGAATGCAGTAAACCCACAGTGGTGTGACGTCCATGGG
 CCAGGCCACCTGGAGTGACCCCCACAAGGCCAAGACTATGCTGAACCGAATCCCCTTGGCAAGTTTGT
 GAGGTAGAGCACGTGGTGAACGCCATCCTCTTCTGCTGAGTGACCGAAGTGGCATGACCACGGTTCCA
 CTTTGCCGGTGAAGGGGCTTCTGGCCTGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200023 protein sequence
 Red=Cloning site Green=Tags(s)

MELFLAGRRVLVTGAGKIGRGTVQALHATGARVVAVSRTQADLDSLVRECPGIEPVCVDLGDWEATERA
 LGSVGPVDLLVNNAVALLPFLEVTKEAFDRSFEVNLRAVIQVSQIVARGLIARGVPGAIVNVSSQCSQ
 RAVTNHSVYCSTKGALDMLTKVMALELPHKIRVNAVNPVVMTSMGQATWSDPHKAKTMLNRIPLGKFA
 EVEHVVNAILFLLSDRSMTTGSTLPVEGGFWAC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6171_c12.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_016286

ORF Size: 732 bp

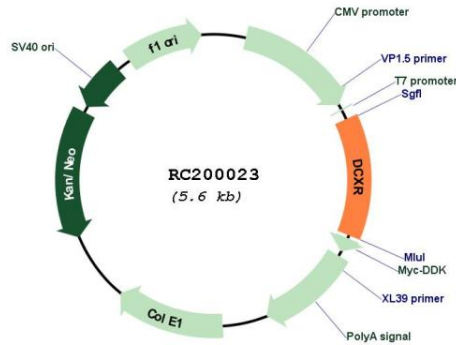
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

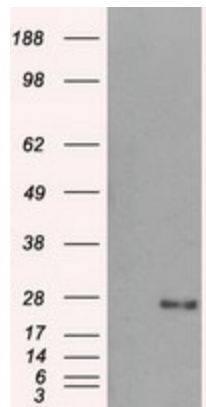
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_016286.4
RefSeq Size:	860 bp
RefSeq ORF:	735 bp
Locus ID:	51181
UniProt ID:	Q7Z4W1
Cytogenetics:	17q25.3
Domains:	adh_short
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Pentose and glucuronate interconversions
MW:	25.9 kDa
Gene Summary:	The protein encoded by this gene acts as a homotetramer to catalyze diacetyl reductase and L-xylulose reductase reactions. The encoded protein may play a role in the uronate cycle of glucose metabolism and in the cellular osmoregulation in the proximal renal tubules. Defects in this gene are a cause of pentosuria. Two transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Aug 2010]

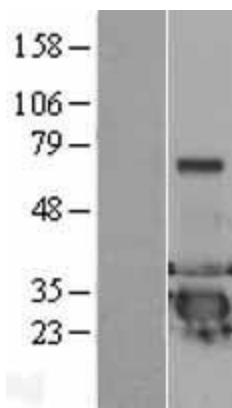
Product images:



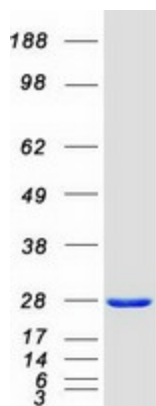
Circular map for RC200023



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DCXR (Cat# RC200023, 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-DCXR antibody (Cat# [TA500820]). Positive lysates [LY402535] (100ug) and [LC402535] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402535]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200023 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DCXR protein (Cat# [TP300023]). The protein was produced from HEK293T cells transfected with DCXR cDNA clone (Cat# RC200023) using MegaTran 2.0 (Cat# [TT210002]).