

Product datasheet for **RC219451**

DGCR8 (NM_022720) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DGCR8 (NM_022720) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DGCR8
Synonyms:	C22orf12; DGCRK6; Gy1; pasha
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC219451 representing NM_022720
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGACAGATGAGAGCCCTCTCCGCTCCCGTGTGGGCCCGCAGGAGAAGCGGTGATGGAGAGCCGAG
 CTGCCCCCTTCCAAGCGCTGCCCGTGAGCAGTCTCCACCACCTCCCCTGCAAACGTCCAGTGGTGAGAG
 GGTAATGGACGTTGGCTCTGGTGGTGGTGGACAGTCCGAACTCCCTGCTGAGGACCCCTCAACTCTAC
 GGAGCTTCTCTTCTCCAAAGGATCCTTCTCTAAGGGCCGCTCCTCATAGACCCGAACTGTAGTGGCC
 ACAGCCCAGCACCAGCCCGCACGCACCTGCGGTCCGGAAGTTCTCCCCTGACCTTAAGTTGCTTAAGGA
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 GAGCGCAGCTGCGGGCGGAGTGGGTCTGCTCCTTAGCCCTGTCAGTGGGACGTGCATGCTTGTCCCT
 TTGGCGGGAGTGTGGTACGGGGTAGGCATAGGGGGTGGAGTGTGATAAGAAGGATGAGGAGAATGA
 GCTGGATCAGGAAAAGAGAGTGGAGTATGCAGTGTGATGAGTTAGAAGATTTTACTGACAATTTGGAG
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 CCTTGAATTTCCCTACGAGGATGACTTTGACAACGATGTGGATGCTCTGCTGGAAGAAGCCCTTTGTGC
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 GGGATGTGTCCTCCCGTCAAGCCCTGAGCCGATCTGCAGAGTGGAGTTTCCCCTGGATGAGCTGACT
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 GCATCCTGCACGAGTACATGCAGCGTGTCTCAAGGTCCGCCCTGTCTATAATTTCTTTGAATGTGAGAA
 CCCAAGTGAGCCTTTTGGTGCCTCGGTGACCATTGATGGTGTGACTTACGGATCTGGAAGTCAAGCAGC
 AAAAACTTGCGAAGAATAAAGCTGCCGAGCTACACTGGAATCCTCATCCCTGACTTTGTAAACAGA
 CCTCTGAAGAGAAGCCAAAGACAGTGAAGAACTCGAGTATTTAACCACATCAGCATCGAGGACTCGCG
 GGTCTACGAGCTGACCAGCAAGGCTGGGCTGTTGTCTCCATATCAGATCTCCACGAGTGCCTTAAAGA
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 GAGAGCAGCAAGATGGTCAAGCAGGAGACATCGGACAAGAGTGTGATTGAGCTGCAGCAGTATGCCAAGA
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 GTGGACGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC219451 representing NM_022720
Red=Cloning site Green=Tags(s)

METDESPSPLPCGPAGEAVMESRARPFQALPREQSPPPPLQTSSGAEVMDVGSGGDGQSELPAEDPFNFY
GASLLSKGSFSKGRLLIDPNCSGHSPRTARHAPAVRKFSPLKLLKDKIVSVSFTECSRKDRKVLVTGA
ERDVRAECGLLLSPVSGDVHACPFGGVGDVGGIGGESADKKDEENELDQEKRVYAVLDELEDFTDNLE
LDEEGAGGFTAKAIVQRDRVDEEALNFPYEDDFDNDVDALLEEGLCAPKKRRTEEKYGGSDHPSDGETS
VQPMMTKIKTVLKSRRPPTTEPLPDGWIMTFHNSGVPVYLHRESRVVTSRPFYFLGTGSIRKHDPLSSI
PCLHYKKMKDNEEREQSSDLTPSGDVSPVKPLSRSAELEFPLDEPDSMGADPGPPDEKDPLGAEAAPGAL
GQVKAKVEVCKDESVDLEEFRSYLEKRFDFEQVTYKKFRTWAERRQFNREMKRQAESERPILPANQKLI
TLVSVQDAPTKKEFVINPNGKSEVCILHEYMQRVLKVRPVYNFECENPSEPFASVTIDGVTYGGTASS
KKLAKNKAARATLEILIPDFVKQTSEEKPKDSELEYFNHISIEDSRVYELTSKAGLLSPYQILHECLKR
NHGMGDTSIKFEVVPGNQKSEYVMACGKHTVRGWCKNKRVGKQLASQKILQLLHPVKNWGSLLRMYGR
ESSKMKVQETSDKSVIELQQYAKKNPNLHILSKLQEMKRLAEEREETRKKPKMSIVASAQPGGEPLCT
VDV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2504_g02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:


ACCN: NM_022720

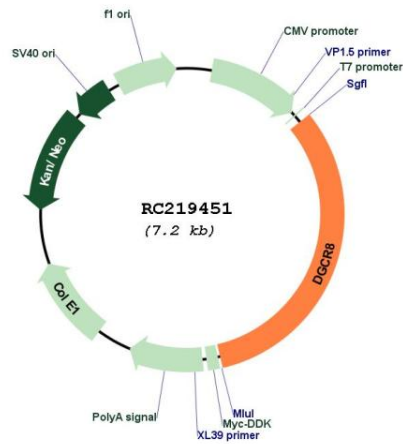
ORF Size: 2319 bp

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.

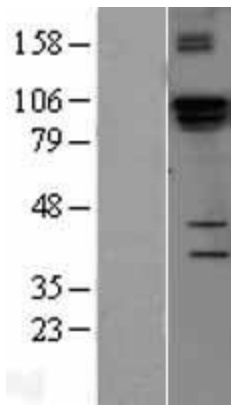
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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_022720.7
RefSeq Size:	4461 bp
RefSeq ORF:	2322 bp
Locus ID:	54487
UniProt ID:	Q8WYQ5
Cytogenetics:	22q11.21
MW:	85.9 kDa
Gene Summary:	This gene encodes a subunit of the microprocessor complex which mediates the biogenesis of microRNAs from the primary microRNA transcript. The encoded protein is a double-stranded RNA binding protein that functions as the non-catalytic subunit of the microprocessor complex. This protein is required for binding the double-stranded RNA substrate and facilitates cleavage of the RNA by the ribonuclease III protein, Drosha. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jun 2010]

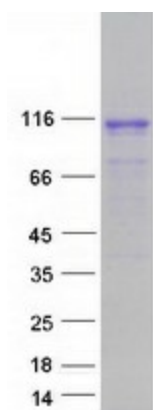
Product images:



Circular map for RC219451



Western blot validation of overexpression lysate (Cat# [LY402934]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219451 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DGCR8 protein (Cat# [TP319451]). The protein was produced from HEK293T cells transfected with DGCR8 cDNA clone (Cat# RC219451) using MegaTran 2.0 (Cat# [TT210002]).