

Product datasheet for MC206166

Dgcr8 (BC062919) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dgcr8 (BC062919) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Dgcr8
Synonyms:	N41, Gy1
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF: >BC062919
GCGGGTTGTGGCGGCCCGGGGTCGGTGAGGGTCGACCGGCTGTGGTCGGGCTGCGGGCGGCTCGGGCAG
GTCGCGGGCGCCACAGGTGGAAGAAGAAAGGTGCCACTTTGGCATGAAGATAGACTCACTTAGACGTCAA
TCTTTTAAGCTGAGTGCATTGTGATTTCCAATAATTGAGGCAGTGGTTCTAAAAGCTGTCTACATTAATG
AAAAGAGCAATGTGGCCAGCTTGACTAAGCCGCCAGTGTGTACAGCGCGGCAGGACGACACCGGGTCTC
GACGGACTTGTGCATGTTAGCAGTATAGATTTATGTAAGGTGGTTAAAAGTCTGGTCTTTAAAGTAGT
CTTAAGTCTCATAATATGGAGACATATGAGAGTCCCTCTCCTCTCCCGCGTGAGCCCGCAGGAGAAGCG
ATGATGGAGAACCGAGCTTGCCCTTCCAAGTGTGCCCATGAACAGTCTCCACCCTCCCTGCAAA
CGTCCAGTGATGCAGAGTAATGGACGTTGGCTCTGGTGGTGATGGACAGTCCGAACCTCTGCCGACGA
CCCATTCAACTTCTACGGAGCTTCTCTTCTCTCAAAGGATCCTTCTCTAAGGGCCGCTCTCATAGAC
CCGAAGTGTAGTGGCCACAGCCCGCAGTGGCCGACGACCTGCGGTCCGGAAGTTCTCCCTGACC
TTAAGTTGCTTAAGGATGTAAGATTAGCGTGAGCTTTACTGAGAGCTGCAGGAGTAAGGACAGGAAGGT
GCTGTACACAGGAGTAGAACGCAGCACTCGGCCTGAGTGTGGCCAGCTCCTTAGTCTGTGAGTGGGAC
GTGCATGCTTGTCCCTTTGGCGGGAGTGTGGTAAATGGGGTAGGCCTAGGGGGTGAGAGTGCAGATAAGA
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TACTGACAATTTGGAGCTAGATGAAGAAGAACAGGCGGGTTCACGGCTAAAGCAATCGTTCAAAGAGAC
AGAGTGGATGAAGAGGCCTTGAATTTCTCCTATGAGGATGACTTTGACAATGATGTGGACGCTTACTAG
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TGATGGAGAGACAAGTGTACAGCCAATGATGACCAAGATTAACAAGTGTCTCAAAGTCTGGCCGTCCA
CCTACAGAGCCATTGCCTGATGGATGGATCATGACTTTTCAATAATTCTGGAGTCCCTGTATACCTGCACA
GAGAGTCTCGAGTGGTCACTTGGTCCAGACCCTACTTCTTGGGAACAGGAAGCATACGGAACATGATCC
TCCTCTAAGCAGTATCCCTGCCTACATTATAAGAAAATGAAGGACAATGAGGAACGAGAACAAAAGTGT
GATCTTGGCCCCAGTGGAGAGGTGTACCTGTCAAGCCCTTGGTTCGGTCTGCAGAGTTGGATTTCCCTC
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AGCCGCTGGAGCCCTGGGACAAGTGAAGGCTAAAGTTGAGGTGTGCAAAGATGAATCAGTTGATCTGGAG
GAATTTCTGAATACCTTGAGAAGCGTTTTGACTTTGAACAAGTAACTGTAAAAAATTCAGGACTTGGG
CTGAGCGCGTCAAGTCAACCGTGAAGTGAAGCGAAGCAGGCCGAGTCAGAGAGGCCCATCTGCCAGC



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CAACCAGAAGCTGATCACTCTATCTGTACAAGATGCACCCACAAAAGAAAGAGTTTGTTCATCAATCCCAAT
 GGGAAAGCTGAGGTTTGCATCCTGCACGAATACATGCAGCGTGTCTCAAGGTCGCCCTGTTTATAATT
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 GACTTTGTTAAACAGACCTCTGAGGAGAAGCCTAAAGACAGTGAAGAAGTGGAGTATTTTAAACCATCA
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 GGAAACAATTAGCATCTCAGAAAATCCTTCAGCTACTGCACCCACATGTCAAGAAGTGGGTTCCCTTACT
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 TGAGCCCTTGTGCACAGTCGATGTATGAGGTAGGCAGCATGGGCCAACAGTGTACCCAGGAGAGACCAT
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 AGCCCATCTGTTCAATTTTTAAAGCTTTTATGATGTTTTTAAAATTTGGAAAGAACTTTTACAGTAA
 GAATGAAAGATGCATTTCAACAGATGAATATGCATAAATAGGGAAGTGGCCTTCAATGTAGCCCATCACT
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 TCTGTGCAGCCAGGCTGATTGCAGTTTTTGTCTACCTATGCTCATTGGATAGCCCTGTAAATGGGTA
 TTGAGTAGAGGGTATTACAGAGCCCTATTACCTGTTTACAGAGGGCTACACTCTACATCCTCAGTGTCTCT
 AACCATGTACCTGAAGATACATGGGTGACATGTGCTGTTAGAAAAGATAAGATGGCAACTGTGGCCCTCCC
 AACAGCATCTTCTCCTCTTAATCATGTGTGTGACAGCAGTTAATGTTTATGTTAATCTTGGCAAAAAG
 AACCTTAATTCAGTTGGTAGACTTGGACACTTGATTCTTTTCTGCCTCCCATTCAGTTGTGTTACGTC
 TTTTACTAACCATTGCCCTTAAAACATACTTAACATTGAAAAAGCATATGGTAATGGTGGTATCTCTGC
 AGCCTCACCGACCCAGGCACTGTCAACAGGTGCTGCCACACATTCTGGTCTCCAGTGCCCTCCCTGTCT
 CTTACAGGTGGTCTTATATGTACAGTCATGCTGCAAGGGTGGGGAGCCTGTGCTGATGTCTTCTGTGT
 GTTGGCCAAGGCTGTAGGGTGTACCCTGATGGTCTGAACACATAAAACTGTCCAAAAGGGGAAAAAAAAAA
 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites:

Ascl-NotI

ACCN:

BC062919

Insert Size:

2322 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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: [BC062919](#), [AAH62919](#)

RefSeq Size: 4297 bp

RefSeq ORF: 2322 bp

Locus ID: 94223

Cytogenetics: 16 11.31 cM

Gene Summary: Component of the microprocessor complex that acts as a RNA- and heme-binding protein that is involved in the initial step of microRNA (miRNA) biogenesis (PubMed:17259983). Component of the microprocessor complex that is required to process primary miRNA transcripts (pri-miRNAs) to release precursor miRNA (pre-miRNA) in the nucleus. Within the microprocessor complex, DGCR8 function as a molecular anchor necessary for the recognition of pri-miRNA at dsRNA-ssRNA junction and directs DROSHA to cleave 11 bp away from the junction to release hairpin-shaped pre-miRNAs that are subsequently cut by the cytoplasmic DICER to generate mature miRNAs. The heme-bound DGCR8 dimer binds pri-miRNAs as a cooperative trimer (of dimers) and is active in triggering pri-miRNA cleavage, whereas the heme-free DGCR8 monomer binds pri-miRNAs as a dimer and is much less active. Both double-stranded and single-stranded regions of a pri-miRNA are required for its binding. Specifically recognizes and binds N6-methyladenosine (m6A)-containing pri-miRNAs, a modification required for pri-miRNAs processing (By similarity). Involved in the silencing of embryonic stem cell self-renewal (PubMed:17259983).[UniProtKB/Swiss-Prot Function]