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Product datasheet for SC112994

KIAA1967 (CCAR2) (NM_021174) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KIAA1967 (CCAR2) (NM_021174) Human Untagged Clone
Tag:	Tag Free
Symbol:	KIAA1967
Synonyms:	DBC-1; DBC1; KIAA1967; NET35; p30 DBC; p30DBC
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

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>OriGene sequence for NM_021174 edited
CTGAAAGAGGACAGCGTTCCCAATGTCCCAGTTTAAGCGCCAGCGGATCAACCCGCTTCC
AGGGGGACGCAACTTCTCAGGCACAGCTTCAACATCTCTTCTGGGCCCTCCTCCTGGTTT
GCTCACTCCTCCTGTGGCCACAGAACTGTCCCAGAATGCCAGGCACCTTCAGGGTGGGGA
GAAACAGCGGGTCTTCACTGGTATTGTTACCAGCTTGCATGACTACTTTGGGGTTGTGGA
TGAAGAGGTCTTTTTTCAGCTAAGTGTGGTGAAGGGCCGTCTGCCCCAGCTGGGTGAGAA
GGTGCTGGTGAAGGCTGCATACAACCCAGGCCAGGCAGTGCCCTGGAATGCTGTCAAGGT
GCAAACGCTCTCCAACCAGCCCCTACTGAAGTCCCCAGCACCTCCTCTTCTGCATGTAGC
AGCCCTGGGCCAGAAGCAAGGGATCCTGGGAGCTCAGCCTCAGTTGATCTTCCAGCCTCA
CCGGATTCCCCCACTCTTTCCTCAGAAGCCTCTGAGTCTCTTCCAAACATCCCACACACT
TCACCTGAGCCACCTGAACAGATTTCCTGCCCGGGGCCCTCATGGACGGTTGGATCAGGG
CCGAAGTGATGACTATGACTCCAAGAAACGCAAACAGCGGGCTGGTGGAGAGCCCTGGGG
TGCTAAGAAGCCAAGGCATGACCTGCCTCCTTACCGGGTCCACCTCACTCCTTACACTGT
GGACAGCCCCATCTGTGACTTCCTAGAACTCCAGCGCCGTTACCGCAGCCTCCTGGTCCC
CTCAGATTTTCTGTCCGTGCATCTGAGTTGGCTATCAGCCTTCCCCCTGAGCCAGCCCTT
TTCCCTCCATCATCCAAGCCGGATCCAGGTCTCTTCTGAAAAGGAGGCAGCTCCAGACGC
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CTCTTCCCCGGGGTTGGAGGAATTGTATCGTTGTTGCATGCTCTTTGTGGATGACATGGC
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CCAGGCTGACCCGCAGGTGCTGGTGCGTACCGCCATCCGCTGTGCGCAGGCCCAGACTGG
CATTGATTTGAGCGGCTGTACCAAGTGGTGGCGCTTTGCCGAGTTTCAGTACCTGCAGCC
GGGACCCCCCCGGCGGCTTCAGACAGTGGTGGTGTACCTGCCGGATGTCTGGACCATCAT
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AGCAGCAGACACTTCTAGACGGAACGCAGAAACTCCAGAGGCCACCACACAGCAGGAAAC
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TGGCTGTGTAAACCTGTCCCTCCATGGGATTGTGGAGGATCGGAGGCCAAAGGAAAGGAT
CTCTTTTGAGGTGATGGTGCTGGCCGAGCTGTTTCTGGAGATGCTCCAGAGGGATTTTGG
CTATAGAGTTTATAAGATGCTACTGAGCCTTCCTGAAAAGGTCGTGTCCCCACCTGAACC
TGAGAAGGAGGAGGCGGCCAAGGAAGAAGCCACCAAGGAGGAAGAAGCCATCAAAGAGGA
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GGAGCTGGATCCCTCTGCTGTGCTCCCCTTAGACTGTCTGCTTGCTTTTGTGTTCTTTGA
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CTGCCAGTACCGGAGCCTTCAGTACAGCCGCCAGGAGGGCCTGGATGGTGGCCTTCCCGA
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TGCTGCCCCCACAGAACACAAAGCCTTGGTGTCCCACAATGGCAGCCTGATTAACGTGGG
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TGAGGGCAGCGGTGGCGCCCGGCAAAGTTGGAGCCCTTGCGGTACCAGAAAGCAGCGAGA
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TTAACAACTAAATACAACATCTTTTGCACCCCTAGAATGTCATTTTGCCCTCAACCTTGG
TATTTCTCCTGGGGCCCTTTTAGTCTTGTGCTGACTTTCTCCTGTCCTCTTCCAGTTTAG
AATAAGACAGGGGAGAAAAAGGCTTTTCGAGTGTGGGACAAGGTCTGATGTCAGTGAACG
GAACTGAAGAGCAAGACATGGAGCCTGGCTGGGGCTAAGCAGCCCCCTCCTCCGGATGGC
ACAGGCTCTGCTAGGTTCCGGACACAGGCTTCTGGGGGAAGGGTCTCCCTTGGC

Restriction Sites: ECoRI-NOT

ACCN: NM_021174

Insert Size: 3300 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	NM_021174.4, NP_066997.3
RefSeq Size:	4031 bp
RefSeq ORF:	2772 bp
Locus ID:	57805
UniProt ID:	Q8N163
Cytogenetics:	8p21.3

Gene Summary: Core component of the DBIRD complex, a multiprotein complex that acts at the interface between core mRNP particles and RNA polymerase II (RNAPII) and integrates transcript elongation with the regulation of alternative splicing: the DBIRD complex affects local transcript elongation rates and alternative splicing of a large set of exons embedded in (A + T)-rich DNA regions. Inhibits SIRT1 deacetylase activity leading to increasing levels of p53/TP53 acetylation and p53-mediated apoptosis. Inhibits SUV39H1 methyltransferase activity. As part of a histone H3-specific methyltransferase complex may mediate ligand-dependent transcriptional activation by nuclear hormone receptors. Plays a critical role in maintaining genomic stability and cellular integrity following UV-induced genotoxic stress. Regulates the circadian expression of the core clock components NR1D1 and ARNTL/BMAL1. Enhances the transcriptional repressor activity of NR1D1 through stabilization of NR1D1 protein levels by preventing its ubiquitination and subsequent degradation (PubMed:18235501, PubMed:18235502, PubMed:19131338, PubMed:19218236, PubMed:22446626, PubMed:23352644, PubMed:23398316). Represses the ligand-dependent transcriptional activation function of ESR2 (PubMed:20074560). Acts as a regulator of PCK1 expression and gluconeogenesis by a mechanism that involves, at least in part, both NR1D1 and SIRT1 (PubMed:24415752). Negatively regulates the deacetylase activity of HDAC3 and can alter its subcellular localization (PubMed:21030595). Positively regulates the beta-catenin pathway (canonical Wnt signaling pathway) and is required for MCC-mediated repression of the beta-catenin pathway (PubMed:24824780). Represses ligand-dependent transcriptional activation function of NR1H2 and NR1H3 and inhibits the interaction of SIRT1 with NR1H3 (PubMed:25661920). Plays an important role in tumor suppression through p53/TP53 regulation; stabilizes p53/TP53 by affecting its interaction with ubiquitin ligase MDM2 (PubMed:25732823). Represses the transcriptional activator activity of BRCA1 (PubMed:20160719). Inhibits SIRT1 in a CHEK2 and PSEM3-dependent manner and inhibits the activity of CHEK2 in vitro (PubMed:25361978).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (1) represents the longest transcript, and encodes the longer isoform (1).