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Product datasheet for RC207481

C20orf77 (RPRD1B) (NM_021215) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	C20orf77 (RPRD1B) (NM_021215) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	C20orf77
Synonyms:	C20orf77; CREPT; dJ1057B20.2; K-H; Kub5-Hera; NET60
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC207481 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCCTCCTTCTCTGAGTCGGCGCTGGAGAAGAAGCTCTCGGAGCTGAGCAACTCTCAGCACAGCGTGC
AGACCCTGTCCCTTTGGCTCATCCACCACCGCAAGCACGCGGGACCCATCGTCTCCGTGTGGCACCGCGA
GCTCCGCAAAGCCAAATCAAATAGAAAGCTTACTTTTCTGTATTTAGCGAATGATGTCATCCAAAACAGT
AAAAGGAAAGGACCTGAATTCACTAGAGAATTTGAATCTGTCCTTGTGGATGCTTTTTCTCATGTTGCCA
GAGAGGCAGATGAAGGCTGTAAAAAACCTTTAGAAAGATTGCTGAACATCTGGCAAGAACGAAGTGTGTA
TGGCGGCGAGTTCATACAGCAGCTGAAGCTGTCTATGGAGGACTCCAAGAGCCCTCCCCCCAAAGCAACA
GAAGAGAAGAAATCTCTGAAACGAACTTTTCAGCAAATTCAGGAGGAGGAGGATGACGACTACCCTGGCA
GCTACTCTCCTCAGGATCCTTCTGCAGGACCCCTCTTGACTGAGGAACTAATCAAAGCTTTGCAGGATCT
GGAAAATGCCGCATCAGGGGATGCTACTGTCCGACAGAAAATTGCTTCTCTGCCCCAGGAAGTGCAAGAT
GTTTCTCTATTGGAAAAAATAACAGACAAAGAGGCAGCTGAACGTCTTTCAAAAACAGTAGATGAAGCAT
GTCTGTTACTAGCAGAATATAACGGGCGCCTGGCAGCAGAACTGGAGGACCGTCGCCAGCTGGCTCGGAT
GTTGGTGGAGTATACCCAGAATCAGAAAGATGTTTTGTCGGAGAAGGAGAAAAAACTAGAGGAATACAAA
CAGAAGCTTGCACGAGTAACCCAGGTCCGCAAGGAACTGAAATCCCATATTCAGAGCTTGCCAGACCTCT
CACTGCTGCCCAACGTCACAGGGGGCTTAGCCCCCCTGCCCTCTGCTGGGGACCTGTTTTCAACTGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC207481 protein sequence
Red=Cloning site Green=Tags(s)

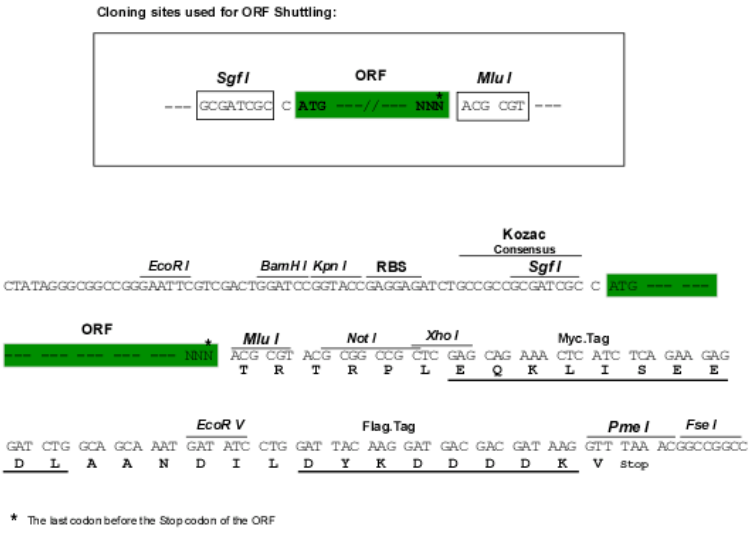
MSSFSESALEKKLSELSNSQHSVQTLSLWLIHHRKHAGPIVSVWHRELRKAKSNRKLTFLYLANDVIQNS
KRKGPEFTREFESVLVDAFSHVAREADEGCKKPLERLLNIWQERSVYGGEFIQQLKLSMEDSKSPPPKAT
EEKKSLKRTFQQIQEEEDDDYPGSYSPQDPSAGPLLTEELIKALQDLENAASGDATVRQKIASLPQEVQD
VSLLEKITDKEAAERLSKTVDEACLLLAEYNGRLAAELEDRRQLARMLVEYTQNQKDVLSEKEKKLEEYK
QKLARVTQVRKELKSHIQSLPDLSLLPNVTGGLAPLPSAGDLFSTD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6517_c10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021215

ORF Size: 978 bp

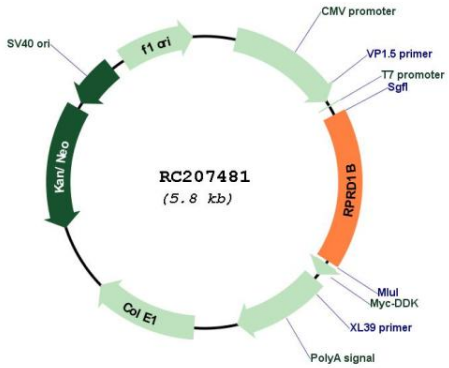
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

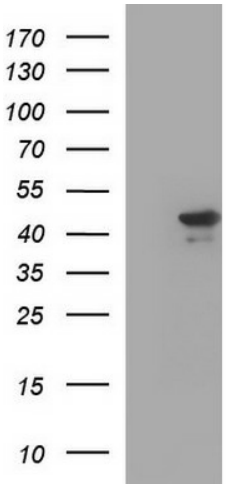
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	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_021215.4
RefSeq Size:	3895 bp
RefSeq ORF:	981 bp
Locus ID:	58490
UniProt ID:	Q9NQG5
Cytogenetics:	20q11.23
Domains:	RPR, DUF618
MW:	36.9 kDa
Gene Summary:	Interacts with phosphorylated C-terminal heptapeptide repeat domain (CTD) of the largest RNA polymerase II subunit POLR2A, and participates in dephosphorylation of the CTD by RPAP2. Transcriptional regulator which enhances expression of CCND1. Promotes binding of RNA polymerase II to the CCDN1 promoter and to the termination region before the poly-A site but decreases its binding after the poly-A site. Prevents RNA polymerase II from reading through the 3' end termination site and may allow it to be recruited back to the promoter through promotion of the formation of a chromatin loop. Also enhances the transcription of a number of other cell cycle-related genes including CDK2, CDK4, CDK6 and cyclin-E but not CDKN1A, CDKN1B or cyclin-A. Promotes cell proliferation.[UniProtKB/Swiss-Prot Function]

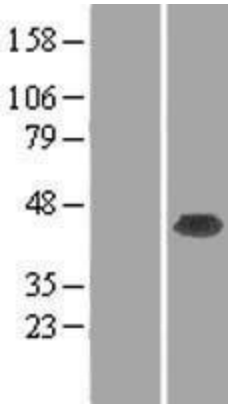
Product images:



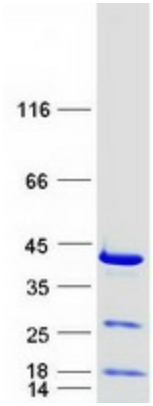
Circular map for RC207481



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RPRD1B (Cat# RC207481, 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-RPRD1B(Cat# [TA507369]). Positive lysates [LY412017] (100ug) and [LC412017] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY412017]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207481 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RPRD1B protein (Cat# [TP307481]). The protein was produced from HEK293T cells transfected with RPRD1B cDNA clone (Cat# RC207481) using MegaTran 2.0 (Cat# [TT210002]).