

Product datasheet for RR204208

Wdr61 (NM_001025743) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Wdr61 (NM_001025743) Rat Tagged ORF Clone

Tag: Myc-DDK
Symbol: Wdr61

Synonyms: RGD1308228

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Cell Selection: Neomycin

ORF Nucleotide >RR204208 representing NM_001025743
Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RR204208 representing NM_001025743

Red=Cloning site Green=Tags(s)

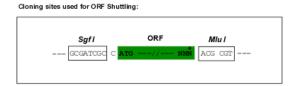
MTNQYSILFKQEQAHDDAIWSVAWETNKKENIETVVTGSLDDLVKVWKWRDERLELQWSLEGHQLGVVSV DISHTLPIAASSSLDAHIRLWDLENGKQMKSIDAGPVDAWTLAFSPDSQHLATGTHMGKVNIFGVESGKK EYSLDTRGKFILSIAYSPDGKYLASGAIDGIINIFDIATGKLLHTLEGHAMPIRSLTFSPDSQLLVTASD DGYIKIYDVQHANLAGTLSGHASWVLNVAFCPDDTHFVSSSSDKSVKVWDVGTRTCIHTFFDHQDQVWGV KYNGNGSKIVSVGDDQEIHVYDCPI

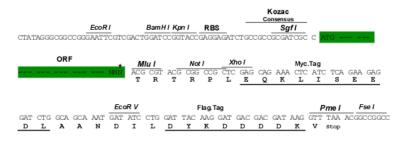
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

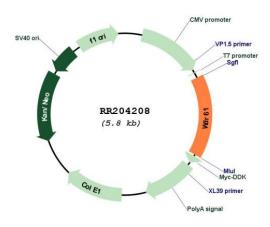
Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001025743

ORF Size: 915 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: <u>NM 001025743.1</u>, <u>NP 001020914.1</u>

RefSeq Size: 1232 bp
RefSeq ORF: 918 bp
Locus ID: 363064
UniProt ID: Q4V7A0
Cytogenetics: 8q24

MW: 33.7 kDa



Gene Summary:

Component of the PAF1 complex (PAF1C) which has multiple functions during transcription by RNA polymerase II and is implicated in regulation of development and maintenance of embryonic stem cell pluripotency. PAF1C associates with RNA polymerase II through interaction with POLR2A CTD non-phosphorylated and 'Ser-2'- and 'Ser-5'-phosphorylated forms and is involved in transcriptional elongation, acting both indepentently and synergistically with TCEA1 and in cooperation with the DSIF complex and HTATSF1. PAF1C is required for transcription of Hox and Wnt target genes. PAF1C is involved in hematopoiesis and stimulates transcriptional activity of KMT2A/MLL1. PAF1C is involved in histone modifications such as ubiquitination of histone H2B and methylation on histone H3 'Lys-4' (H3K4me3). PAF1C recruits the RNF20/40 E3 ubiquitin-protein ligase complex and the E2 enzyme UBE2A or UBE2B to chromatin which mediate monoubiquitination of 'Lys-120' of histone H2B (H2BK120ub1); UB2A/B-mediated H2B ubiquitination is proposed to be coupled to transcription. PAF1C is involved in mRNA 3' end formation probably through association with cleavage and poly(A) factors. Required for mono- and trimethylation on histone H3 'Lys-4' (H3K4me3), dimethylation on histone H3 'Lys-79' (H3K4me3). Required for Hox gene transcription. Component of the SKI complex which is thought to be involved in exosomemediated RNA decay and associates with transcriptionally active genes in a manner dependent on PAF1C (By similarity).[UniProtKB/Swiss-Prot Function]