

Product datasheet for RC209653

C5orf45 (MRNIP) (NM_016175) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	C5orf45 (MRNIP) (NM_016175) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	C5orf45
Synonyms:	C5orf45
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209653 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGCGTCGCTTCAGCGTTCTCGGGTGCTACGCTGCTGCAGCTGCCGCCTCTTCCAGGCGCACCAGGTAA
 AAAAGAGTGTCAAGTGGACATGCAAAGCTTGTGGAGAGAAGCAGTCCTTTTGCAGGCTTATGGTGAAGG
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 CGCTTCAGTCAAGACCTGCCTAGAAAAAGGAAGTGGAGCGGGAGCACCGTCCAGCCTCCGTGCAGCCGTG
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 TGGTCCAGCACAGGCTAAGCAAGGGACCCAGAGCACAGGCCTCAAGAGAAGGCCTCAGCAGGCCCACT
 GCCGCTGTCCAGCTTCTCGGGCCACACACCCCGTCACATCTGGGTCTGAGAGGCCTTGGGGAAGACCT
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 ACGACTATGTGACCTCTTTATACTGGGAAGACTTCGATGATGATGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence: >RC209653 protein sequence
 Red=Cloning site Green=Tags(s)

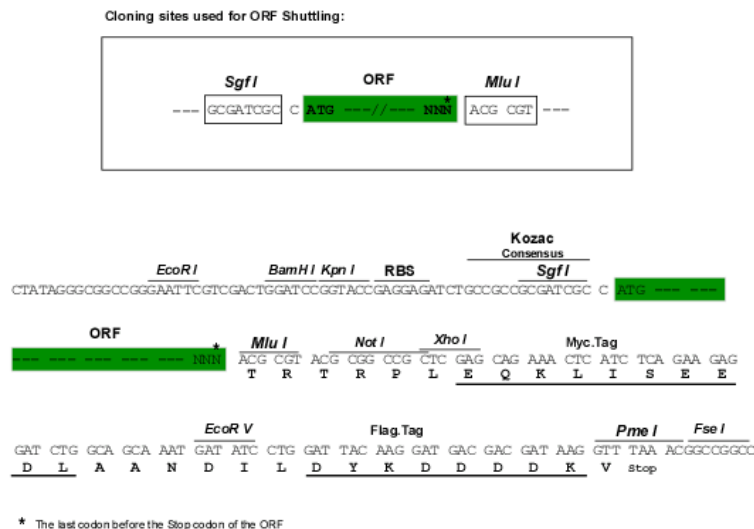
MASLQRSRVLRCCSCLFQAHQVKKSVKWTCKACGEKQSFLQAYGEGSGADCRRHVQKLNLLQGQVSELP
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 RFSQDLPRKRKWSGSTVQPPCSRGVQDSGGSEVAWGPQKGQAGLTKWKVKGSSPCLQENSADCSAGELRG
 PGKELWSPIQVTATSSKWAQFVLPKRKSSHVDSEQPRSLQRDRPAGPAQAKQGTTPRAQASREGLSRPT
 AAVQLPRATHPVTSGERPCGKTSWDARTPWAEGGPLVLEAQNRPRTLCDLFITGEDFDDDV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6556_g12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_016175

ORF Size: 1029 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_016175.4](#)

RefSeq Size: 1229 bp

RefSeq ORF: 1032 bp

Locus ID: 51149

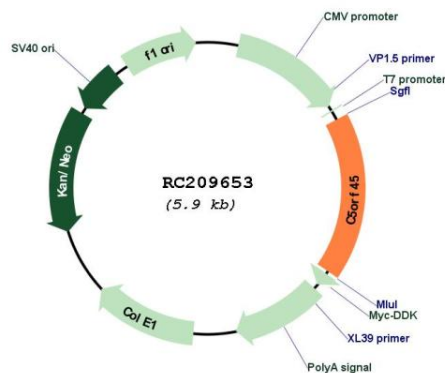
UniProt ID: [Q6NTE8](#)

Cytogenetics: 5q35.3

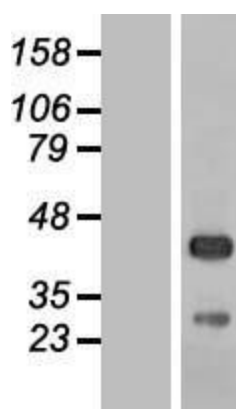
MW: 37.6 kDa

Gene Summary: Plays a role in the cellular response to DNA damage and the maintenance of genome stability through its association with the MRN damage-sensing complex (PubMed:27568553). Promotes chromatin loading and activity of the MRN complex to facilitate subsequent ATM-mediated DNA damage response signaling and DNA repair (PubMed:27568553). [UniProtKB/Swiss-Prot Function]

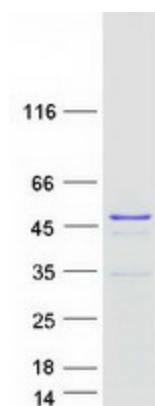
Product images:



Circular map for RC209653



Western blot validation of overexpression lysate (Cat# [LY414145]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209653 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MRNIP protein (Cat# [TP309653]). The protein was produced from HEK293T cells transfected with MRNIP cDNA clone (Cat# RC209653) using MegaTran 2.0 (Cat# [TT210002]).