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Product datasheet for RC219267

DOK7 (NM_173660) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DOK7 (NM_173660) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DOK7
Synonyms:	C4orf25; CMS1B; CMS10; FADS3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RC219267 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACCGAGGCGGCGCTGGTGGAGGGCCAGGTCAAGCTGCGGGACGGCAAGAAGTGGAAGAGTAGGTGGC
TGGTGCTGCGGAAGCCGTCGCCCGTGGCAGACTGCCTGCTGATGCTGGTCTACAAGGACAAGTCGGAGCG
TATCAAGGGCCTGCGGGAGCGCAGCAGCCTGACGCTAGAGGACATCTGCGGGCTGGAGCCCGGCCTGCCC
TACGAGGGCCTGGTCCACACGCTGGCCATTGTCTGCCTGTCCCAGGCCATCATGCTGGGCTTTGACAGCC
ACGAGGCCATGTGTGCGTGGGATGCCCGGATCCGCTATGCGCTCGGCGAGGTGCATAGGTTCCATGTGAC
AGTGGCTCCAGGCACCAAGTTGGAGAGCGGCCCGGCTACCCTGCACCTCTGCAATGATGTCCTCGTCTTG
GCCAGGGACATCCCCCCGGCTGTCACGGGGCAGTGGAAGCTGTCTGACCTCCGGCGCTACGGGGCCGTGC
CAAGCGGATTCATCTTTGAAGGCGGGACCAGGTGTGGGTACTGGGCTGGCGTCTTCTTCCTGTCCTCGGC
CGAGGGGGAGCAGATCAGCTTCCTGTTCGACTGCATCGTCCGAGGCATCTCCCCCACCAAGGGCCCCTTT
GGGCTGCGGCCGGTTCTACCAGACCCAAGTCCCCCGGGACCCTCGACTGTGGAGGAGCGTGTGGCCCAGG
AAGCCCTGGAAACCCTACAGCTGGAGAAGCGGCTGAGCCTCCTCTCACATGCGGGCAGGCCGGGCAGTGG
AGGGGATGACCGCAGCCTGTCCAGCTCATCCTCAGAGGCCAGTCACTTGGACGTCAGCGCCAGCAGCCGG
CTCACCGCATGGCCAGAGCAATCCTCGTCGTCAGCCAGCACGTCACAGGAGGGGCCTAGACCAGCAGCTG
CCCAGGCCGCCGGGGAAGCCATGGTGGGTGCCTCAAGGCCACCCCCCAAGCCGCTGCGTCCGCGGCAGCT
GCAGGAGGTTGGCCGCCAGAGCTCCTCGGACAGCGGCATCGCCACTGGCAGCCACTCCTCTTACTCCAGC
AGCCTCTCGTCCTACGCGGGCAGCAGCCTGGACGTGTGGCGGGCCACAGATGAACTGGGCTCACTGCTCA
GCCTGCCAGCAGCGGGGGCCCCCGAGCCCAGCCTGTGCACCTGCCTGCCCGGGACAGTCGAGTACCAGGT
GCCCACCTCCCTGCGGGCCCACTATGACACACCACGCAGCCTTTGCCTGGCTCCTAGAGACCACAGCCCC
CCCTCACAGGGCAGCCCCGGCAACAGTGCGGCCAGGGACTCAGGCGGCCAGACGTCCGCCGGGTGTCCCT
CTGGCTGGCTGGGCACGAGACGGCGGGGCCTGGTGATGGAGGCCCCCCAGGACAGCGAGGCCACACTGCC
TGGCCCTGCCCCTGGCGAGCCCTGGGAAGCAGGCGGCCCCCACGCGGGGCCACCCCCGGCTTTCTTTTCG
GCATGTCCAGTCTGTGGAGGACTCAAGGTAAACCCCCCTCCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC219267 protein sequence
Red=Cloning site Green=Tags(s)

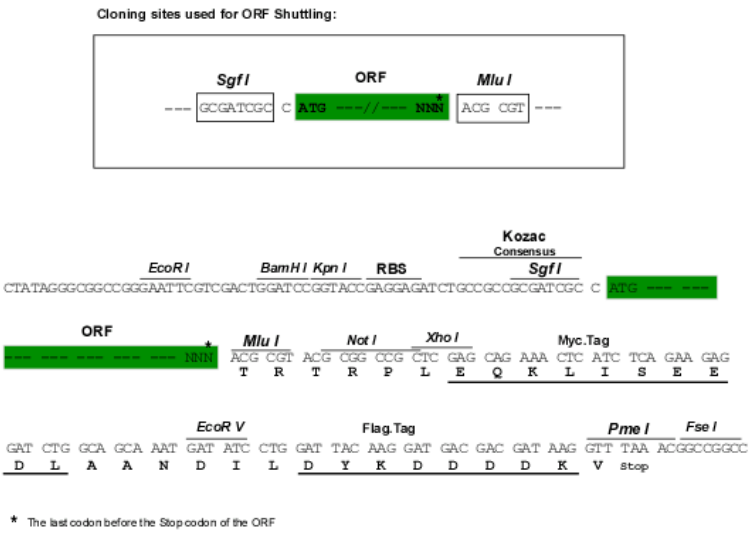
MTEAALVEGQVKLRDGKKWKSRWLVLRKPSPVADCLLMLVYKDKSERIKGLRERSSLTLEDICGLEPGLP
YEGLVHTLAIVCLSQAIMLGFDSHEAMCAWDARIRYALGEVHRFHVTVAPGTKLESGPATLHLCNDVLVL
ARDIPPAVTGQWKLSDLRRYGAVPSGFIFEGGTRCGYWAGVFFLSSAEGEQISFLFDCIVRGISPTKGPF
GLRPVLPDPSPPGPSTVEERVAQEALETLQLEKRLSLLSHAGRPGSGGDDRSLSSSSSEASHLDVSASSR
LTAWPEQSSSSASTSQEGPRPAAAQAAGEAMVGASRPPPKPLRPRQLQEVGRQSSSDSGIATGSHSSYSS
SLSSYAGSSLDVWRATDELGSLLSLPAAGAPEPSLCTCLPGTVEYQVPTSLRAHYDTPRSLCLAPRDHSP
PSQGSPGNSAARDSGGQTSAGCPSGWLGTRRRGLVMEAPQDSEATLPGPAPGEPWEAGGPHAGPPPAFFS
ACPVCGGLKVNPPP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6440_c03.zip

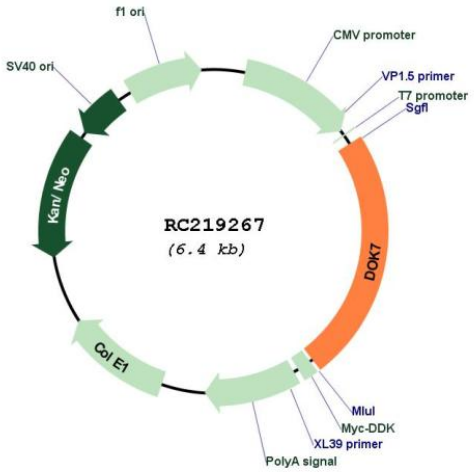
Restriction Sites: SgfI-MluI

Cloning Scheme:



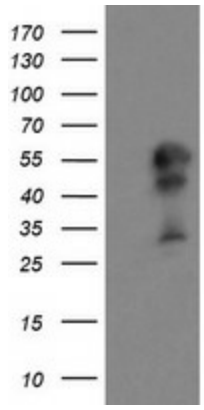
* The last codon before the Stop codon of the ORF

Plasmid Map:

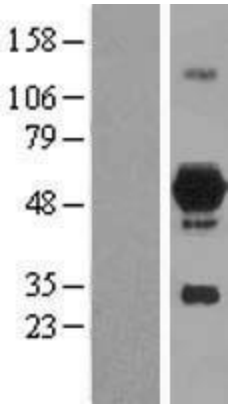


ACCN:	NM_173660
ORF Size:	1512 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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_173660.5
RefSeq Size:	2583 bp
RefSeq ORF:	1515 bp
Locus ID:	285489
UniProt ID:	Q18PE1
Cytogenetics:	4p16.3
MW:	53.2 kDa
Gene Summary:	The protein encoded by this gene is essential for neuromuscular synaptogenesis. The protein functions in aneural activation of muscle-specific receptor kinase, which is required for postsynaptic differentiation, and in the subsequent clustering of the acetylcholine receptor in myotubes. This protein can also induce autophosphorylation of muscle-specific receptor kinase. Mutations in this gene are a cause of familial limb-girdle myasthenia autosomal recessive, which is also known as congenital myasthenic syndrome type 1B. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2009]

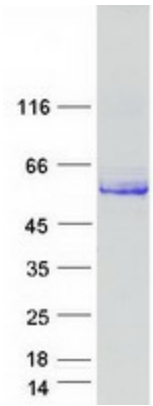
Product images:



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DOK7 (Cat# RC219267, 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-DOK7(Cat# [TA504801]). Positive lysates [LY406543] (100ug) and [LC406543] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY406543]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219267 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DOK7 protein (Cat# [TP319267]). The protein was produced from HEK293T cells transfected with DOK7 cDNA clone (Cat# RC219267) using MegaTran 2.0 (Cat# [TT210002]).