

Product datasheet for **RC202561**

DOK4 (NM_018110) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: DOK4 (NM_018110) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: DOK4
Synonyms: IRS-5; IRS5
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202561 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGACCAATTTCACTGACATCGTCAAGCAAGGCTACGTGAAGATGAAGAGCAGGAAGCTCGGGATCT
ACCGGAGGTGCTGGCTGGTGTCCGGAAATCCTCCAGCAAGGGGCCAGCGGCTGGAGAAGTATCCAGA
TGAGAAGTCGGTGTGCCTCCGGGGCTGCCCAAGGTGACTGAGATCAGCAACGTCAAGTGTGTACGCGG
CTCCCCAAGGAGACCAAGCGGCAGGCGGTGGCCATCATATCACTGATGACTCGGCACGTACCTTCACT
GCGACTCAGAGCTAGAGGCAGAGGAGTGGTACAAGACACTATCTGTGGAGTGTCTGGGGTCCCGCCTCAA
CGACATCAGTCTGGGAGAACCTGACCTCCTGGCCCCAGGGGTGCAGTGTGAACAGACAGATCGCTTCAAT
GTCTTCTGCTGCCCTGCCCAACCTGGACGTGTATGGCGAGTGAAGCTGCAGATCACCCACGAGAACA
TCTACCTCTGGGACATCCACAACCCCGTGTGAAGCTCGTCTCGTGGCCCTCTGCTCACTGCGCCGCTA
TGGCCGGGATGCCACACGCTTTACCTTCGAGGCTGGCCGGATGTGTGATGCTGGGGAAGGACTCTATACC
TTCCAGACACAAGAGGGGGAGCAGATTTACCAGCGCTCCACAGTGCCACCCTGGCCATCGCAGAGCAGC
ACAAGCGGGTCTGCTGGAAATGGAGAAGAACGTGAGGCTGTGAACAAGGGCACGGAACATTACTCGTA
TCCCTGCACACCCACGACCATGCTGCCGCGAGTGCCTACTGGCACCACATCACTGGTCCCAGAATCA
GCCGAAGCCTCCAGCTATGCTGGTGAAGGGTATGGGGCAGCCAGCCAGCTCGGAAACAGACCTCCTCA
ACAGATTCATCCTGCTAAAGCCAAAGCCAGCCAGGGGGACAGCAGTGAAGCCAAAGACCCATCCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202561 protein sequence
Red=Cloning site Green=Tags(s)

MATNFSDIVKQGYYKMKSRKLGIIYRRCWLVFRKSSSKGPQRLEKYPDEKSVCLRGCPKVTEISNVKCVTR
 LPKETKRQAVAIIFTDDSDARTFTCDSELEAEWYKTL SVECLGSRLNDISLGEPELLAPGVQCEQTDRFN
 VFLLPCPNLDVYGECKLQITHENIYLWDIHNPRVKLVSWPLCSLRRYGRDATRFTFEAGRMCDAGEGLYT
 FQTQEGEQIYQRVHSATLAI AEQHKRVLLEMEKNVRLLNKGTEHYSYPCPTTMTLPR SAYWHHITGSQNI
 AEASSYAGEGYGAAQASSETDLLNRFILLKPKPSQGDSSSEAKTPSQ

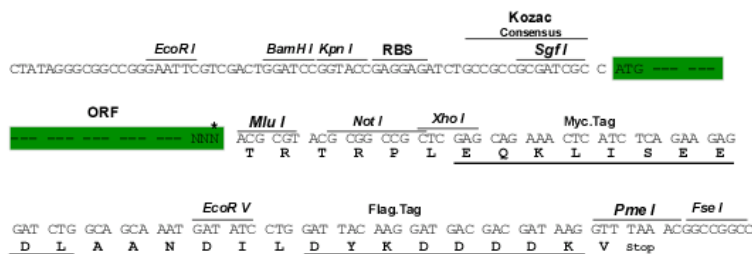
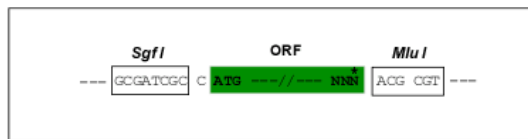
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6572_d10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_018110

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_018110.5](#)

RefSeq Size: 2750 bp

RefSeq ORF: 981 bp

Locus ID: 55715

UniProt ID: [Q8TEW6](#)

Cytogenetics: 16q21

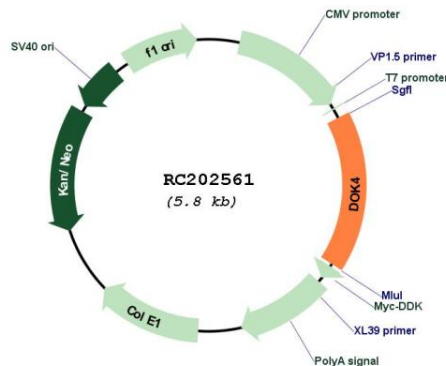
Domains: PH, IRS

Protein Families: Druggable Genome

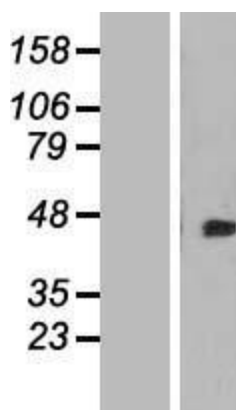
MW: 37 kDa

Gene Summary: DOK proteins are enzymatically inert adaptor or scaffolding proteins. They provide a docking platform for the assembly of multimolecular signaling complexes. DOK4 functions in RET-mediated neurite outgrowth and plays a positive role in activation of the MAP kinase pathway (By similarity). Putative link with downstream effectors of RET in neuronal differentiation. May be involved in the regulation of the immune response induced by T-cells.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC202561



Western blot validation of overexpression lysate (Cat# [LY413297]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202561 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).