

Product datasheet for RC207621

DOK2 (NM_003974) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DOK2 (NM_003974) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DOK2
Synonyms:	p56DOK; p56dok-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207621 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGAGACGGGGCAGTGAACAAGGCTTCTTGTATCTTCAGCAGCAGCAGACGTTTGGAAAGAAATGGC
GCCGCTTCGGCGCCTCACTGTATGGAGGGTCGGACTGCGCCTTGCCCGGCTGGAGCTGCAGGAGGGCCC
GGAGAAGCCTCGTCGGTGTGAGGCTGCCGGAAGGTATCCGCTCAGTGACTGCCTGCGGGTGGCCGAG
GCCGGCGAGAGGCCAGCAGCCCCGGACACCAGTGCCCTTCTCCTGGAGACCAAGGAGCGCCTGTACC
TCCTGGCGGCCCTGCAGCGGAGCGGGGACTGGGTGCAGGCCATCTGCCTCCTGGCCTCCCCGGGCA
GAGGAAGGAGCTCTCGGGCCAGAGGAAAGCAGAGCCGCCCTGCATGGAGGAAATGAATTGTACAGC
AGCGCAGTCACAGTCGGCCCCACAAGGAATTTGCTGTGACCATGAGACCTACAGAAGCCAGTGAGAGGT
GCCACCTGCGGGGCTCTATACCCTCCGGGCTGGGGAGAGTGCCCTGGAGCTGTGGGGTGGGCCCCGAGCC
AGGGACCCAGCTGTACGACTGGCCCTACAGGTTTCTGCGGCGCTTTGGGCGGGACAAGGTAACCTTTTCC
TTTGAGGCAGGCCGTCGCTGCGTCTCTGGAGAGGGCACTTTGAGTTCGAAACCCGGCAAGGCAATGAGA
TCTTCTTGGCCCTGGAAGAGGCCATCTCTGCCAGAAGAATGCTGCACCCGCTACACCCCAACCCGAGCC
AGCCACAATCCCCGCTCGCTGCCCGGCTGATAGCCCTACTCTCGGCCGATGACTCACTGCCGCGC
CCTTACCCACCACCCGGTGCCTGCTCCACGGCCTCGGGCCAGGAGGGGAGATGCCGTGCCCTTCG
ATGCGGTGGCCCGTTCTTGGGAAGAATTCAGGGGCATCTTGGCAGTCCCTCCTCAGCTCCTGGCCGA
CCCTCTGTACGACAGCATTGAGGAGACCTGCCCCCTCGACCTGACCACATATACGATGAGCCCGAGGGA
GTGGTGCCCTGTCCCTATGACAGCCCGCAGGAGCCCCGGGTGAGGCATGGAGGAGGAGGCGACAG
CTGACAGGGACCCTGCTGGCCTCCAGCATGTCCAGCCAGCTGGGCAGGATTTCTCTGCTTCTGGCTGGCA
GCCAGGAAGTGTGATGACAATGTTGTACTAAAGAAAGGCCCAAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC207621 protein sequence
Red=Cloning site Green=Tags(s)

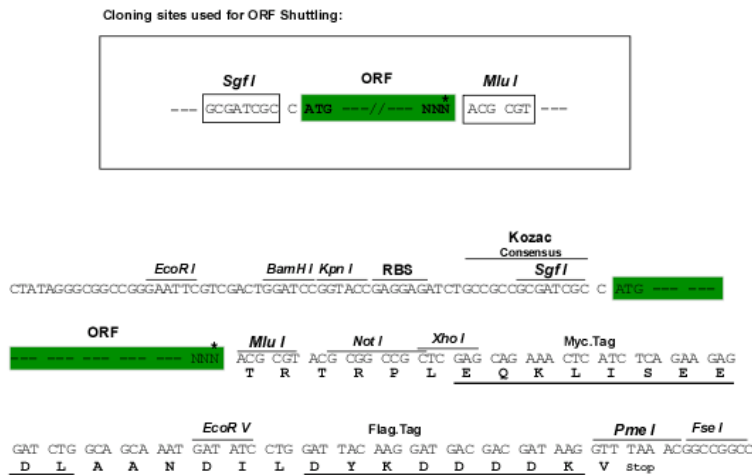
MGDGAVKQGFLYLQQQTFGKKWRRFGASLYGGSDCALARLELQEGPEKPRRCEAARKVIRLSDCLRVAE
 AGGEASSPRDTSAFFLETKERLYLLAAPAAERGDWVQAICLLAFPGQRKELSGPEGKQSRPCMEENELYS
 SAVTVGPHKEFVATMRPTEASERCHLRGSYTLRAGESALELWGGPEPGTQLYDWPYRFLRRFGRDKVTFS
 FEAGRRCVSGEGNFEFETRQNEIFLALLEEAI SAQKNAAPATPQPQATIPASLPRPDPSPYSRPHDSLPP
 PSPTTPVPAPRPRGQEYAVPFDVARSLGKNFRGILAVPPQLLADPLYDSIEETLPPRPDHIYDEPEG
 VAALSLEYDSPQEPRGEAWRRQATADRDPAQLQHVQPAGQDF SASGWQPGTEYDNVVLKKGPK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6336_a12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_003974

ORF Size: 1236 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_003974.4](#)

RefSeq Size: 1870 bp

RefSeq ORF: 1239 bp

Locus ID: 9046

UniProt ID: [O60496](#)

Cytogenetics: 8p21.3

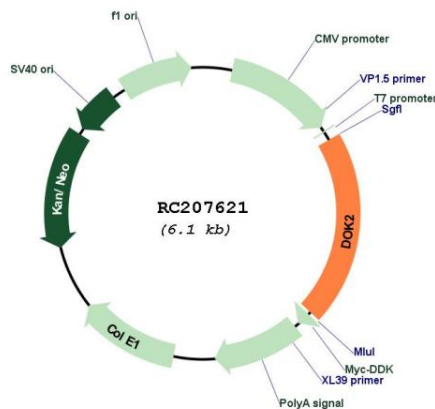
Domains: PH, IRS

Protein Families: Druggable Genome

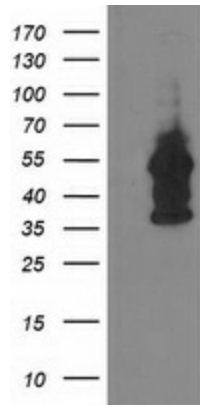
MW: 45.4 kDa

Gene Summary: The protein encoded by this gene is constitutively tyrosine phosphorylated in hematopoietic progenitors isolated from chronic myelogenous leukemia (CML) patients in the chronic phase. It may be a critical substrate for p210(bcr/abl), a chimeric protein whose presence is associated with CML. This encoded protein binds p120 (RasGAP) from CML cells. [provided by RefSeq, Jul 2008]

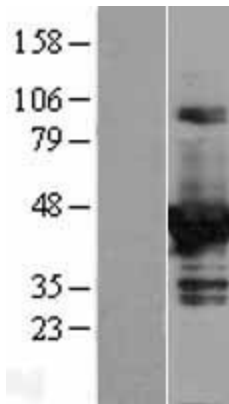
Product images:



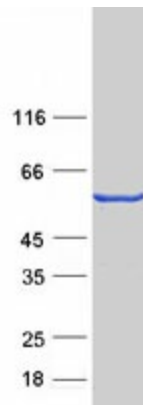
Circular map for RC207621



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DOK2 (Cat# RC207621, 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-DOK2(Cat# [TA503158]). Positive lysates [LY418321] (100ug) and [LC418321] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY418321]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207621 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DOK2 protein (Cat# [TP307621]). The protein was produced from HEK293T cells transfected with DOK2 cDNA clone (Cat# RC207621) using MegaTran 2.0 (Cat# [TT210002]).