

Product datasheet for **RC211665**

KSR2 (NM_173598) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KSR2 (NM_173598) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KSR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC211665 representing NM_173598
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATAGACTTGAGCATCTCCAACCTGGAAGGGCTTAGGACCAAATGTGCTACCTCCAACGACCTCACAC
 AAAAAGAAATCCGGACCTGGAGAGCAAGCTGGTGAAGTACTTCAGCCGGCAGCTGTCTGCAAAAAGAA
 GGTAGCCTTGAGGAGCGCAACGCGGAGCTGGACGGCTTCCCCAGCTACGGCACTGGTTCCGAATCGTC
 GATGTGCGCAAGGAGTCTGGAGGAAATCTCCCCGGCCAGCTGAGCTGGAGGACCTCTGGAGATGA
 CGGATGAACAGGTGTGCGAGACTGTGGAGAAATACGGAGCAACCGGGAGGAGTGTGCCCGCTCAACGC
 CTCCTCTCTGCCTCAGGAATGTCCACATGTCAGGAGGCAACCTTTCAAAACAAGACTGGACCATCCAG
 TGGCCACGACAGAGACGGGAAGGAGAACAATCCCGTGTCCCCCGGAGCCCACCCCGTGGATCCGCA
 CCCATCTCTCCAGAGCCCCAGGTCCCGTCCAAGTGCCTCCAGCACTATTGTCACACCAGCCCCACTCC
 CGGGGCCCTGTGTACCCACGTGGACAGGCTTACCGTGGACGCCTACCCGGGCTTGTGCCGCCCCCG
 CCACTGGAGTCCGGCCACCGTTCCTGCCCCATCGCCCCGGCAGCGGCACGCGTCCGACCCCCCGCGC
 GCACCCCAACATCGTCAACCACCGTGACCCCGGGGCACGCCGCCCATGAGGAAGAAGAACAAGCTGAA
 GCCCCCGGGACCCACCGCCTCTCCGAAAATGATACACTTGATCCCGGATTACCCGCGTGCAT
 CGGAGCAAATCCCACGAGTTCAGCTGGGGACCCGCTGGACGAGGCCACACGCCCAAAGCCAAGAAGA
 AGAGCAAACCTTGAACCTCAAGATCCACAGCAGCGTAGGCAGCTGCGAGAACATCCCCTCTCAGCAGCG
 CTCCCCGTGTGTCGAGCGCTCCCTCCGCTCCTTCTTGTGGACACGCACCTTCTGCCTCCACC
 CCTCTGTTACACTGAGGCAACTTCTCTGAAAACACTGTCAGTGCCACGCTGGTCCCCGCAGATCC
 CTCGCAGAGATCTCGGCACTCCATCAAGCACAGGTTTTCCACCAAGTACTGGATGTCTCAGACGTGAC
 AGTCTGTGGGAAAGGGATGCTTTTTGGCCTCAAGTGTA AAAA ACTGCAAGTTAAAGTGCCACAACAATGC
 ACCAAAGAAGCCCCACCTGTATCTTCTGATCATCCACCGAGGAGATCCAGCAAGGTTAGTCCGGACAG
 AGTCCGTTCCGTGTGACATCAACAACCTCTACGGAAGCCACCTCGTATTAGACCTGCACATCAGTCA
 GACGCTCCCCAAAACCAAAAAAACAAGGACCACATCCCTGTCCCTACCAGCCAGACTCCAGCAGC
 AACCCCTCTCCACGACGTCTCCACGCCCTCTCGCCAGCACCCCCCTCCCTCTAGTGCCACGCCGC
 CTTCTCCCCTACACCCTCCCCACAGTGCACACGGCAGCAGAAGAACTTCAACCTGCCAGCATCCCCTA
 CTACAAAATAAAGCAGCAGTTCATCTCCAGATGTGGTGCCGGTGCCGGAGACGCCGCCCGGGCGCC
 CAGGTCATCCTGCATCCGGTGACCTCGAATCCAATCTTGAAGGAAATCCATTACTTCAAATGAAGTGG
 AGCCAACGTCCGAGAATGAAGAGGTCCATGATGAGGCCGAAGAGTCAGAGGATGACTTCGAGGAGATGAA
 CCTGTCCCTCTCTCGGCCCGGAGCTTCCCACGCAAGGCCAGCCAGACCAGCATCTTCTTCAGGAGTGG
 GACATCCCCTTTGAGCAGCTGGAGATCGGGCAGCTCATTGGAAAGGGCCGCTTTGGGCAAGTGTACCACG
 GCCGCTGGCATGGCGAGGTGGCCATCCGGCTGATTGACATTGAGAGGGACAACGAGGACCAGCTCAAGGC
 CTTCAAGCGGGAGGTGATGGCCTACAGGCAGACACGGCATGAGAACGTGGTGTCTTTTATGGGTGCCTGC
 ATGAGCCCGCCTCACCTGGCCATCATCACCAGCCTCTGTAAGGGACGGACGCTCTATTCCGTTGTGAGGG
 ATGCCAAAATCGTTTTGGATGTCAACAAAACAGGCAGATTGCTCAAGAAATTGTGAAGGCATGGGCTA
 CCTCCACGCCAAGGGAATCCTACACAAGGACCTCAAGTCAAAGAACGTCTTCTATGACAACGGCAAAGT
 GTCATACGGACTTTGGACTCTTCAGCATTTCTGGGTGCTGCAGGCTGGCAGGCCGGGAGGACAAACTGC
 GCATCCAGAATGGCTGGCTATGCCACCTGGCACCAGAGATCATCCGCCAGCTGTCCCCGACACAGAGGA
 GGATAAGCTCCCCTTCTCCAAGCACTCTGACGTCTTTGCCCTTGGCACAATCTGGTATGAACTCCACGCC
 AGGGAATGGCCTTTCAAGACCAACCAGCAGAGGCAATAATCTGGCAAATGGGCACAGGCATGAAACCCA
 ACCTCAGCCAGATTGGCATGGGAAAAGAAATCTCGGACATTCTTCTCTTCTGCTGGGCCCTTTGAACAAGA
 AGAGAGACCTACCTTACCAAGCTCATGGACATGCTGGAGAACTGCCAAAGCGAAACCGTCGCCTGTCT
 CACCCTGGACATTTCTGGAAGTCTGCAGAGCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC211665 representing NM_173598
 Red=Cloning site Green=Tags(s)

MIDLISINLEGLRTKCATSNDLTQKEIRTLESKLVKYFSRQLSCKKKVALQERNAELDGFQLRHWFRIV
 DVRKEVLEEISPGQLSLEDLLEMTDEQVCETVEKYGANREECARLNASLSLRNVHMSGGNSKQDWTIQ
 WPTTETGKENNPVCPPEPTPWIRTHLSQSPRVPSKCVQHYCHTSPTPGAPVYTHVDRLTVDAYPGLCPP
 PLESGRSLPPSPRQRHAVRTPPRTPNIVTTVTPPGTTPMRKKNLKPPTPPSSRKL IHLIPGFTALH
 RSKSHEFQLGHRVDEAHTPKAKKSKPLNLKIHSSVGSCEIPSQQRSPLLSERSLRSFFVGHAPFLPST
 PPVHTEANFSANTLSVPRWSPQIPRRDLGNSIKHRFSTKYWMSQTCTVCGKGMFLGKCKNCKLKCHNKC
 TKEAPPCHLLIIHRGDPARLVRTESVPCDINNPLRKPPRYSDLHISQTLPKTNKINKDHIPVYPQPDSS
 NPSSTTSSTPSSAPPLPPSATPPSPLHSPQCTRQQKNFNLPASHYYKYKQQFIFPDVVPVETPTRAP
 QVILHPVTSNPILLEGNPLLQIEVEPTSENEEVHDEAESEDDFEEMNLSLLSARSFPRKASQTSIFLQEW
 DIPFEQLEIGELIGKGRFGQVYHGRWHGEVAIRLIDIERDNEQLKAFKREVMAYRQTRHENVLFGAC
 MSPPHLAIITSLCKGRTLYSVVRDAKIVLDVNKTRQIAQEVKGMGYLHAKGILHKDLKSNVFDYNGKV
 VITDFGLFSISGLVQAGRREDKLRIQNGWLCHLAPEIIRQLSPDTEEDKLPFSKHSDFVAFALGTIYWELHA
 REWPFKTQPAEAIWQMGTGMKPNLSQIGMKEISDILLFCWAFEQEERTFTTKLMDMLEKLPKRNRRLS
 HPGHFWKSAEL

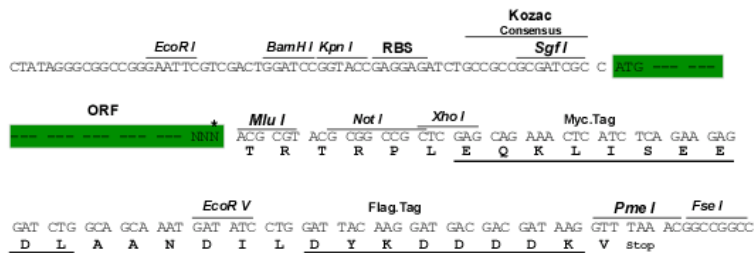
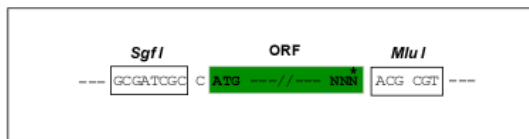
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8013_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

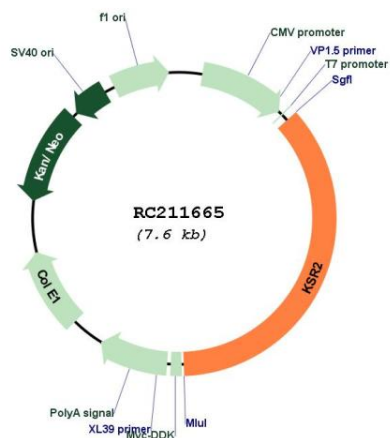


* The last codon before the Stop codon of the ORF

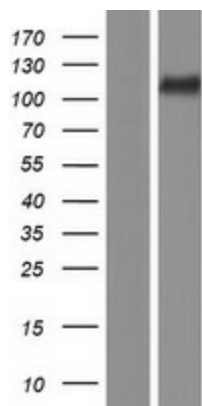
ACCN: NM_173598

ORF Size:	2763 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:	<ol style="list-style-type: none">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_173598.4 , NP_775869.3
RefSeq Size:	17008 bp
RefSeq ORF:	2853 bp
Locus ID:	283455
UniProt ID:	Q6VAB6
Cytogenetics:	12q24.22-q24.23
Protein Families:	Druggable Genome, Protein Kinase
MW:	104.1 kDa
Gene Summary:	Location-regulated scaffold connecting MEK to RAF. Has very low protein kinase activity and can phosphorylate MAP2K1 at several Ser and Thr residues with very low efficiency (in vitro). Interaction with BRAF enhances KSR2-mediated phosphorylation of MAP2K1 (in vitro). Blocks MAP3K8 kinase activity and MAP3K8-mediated signaling. Acts as a negative regulator of MAP3K3-mediated activation of ERK, JNK and NF-kappa-B pathways, inhibiting MAP3K3-mediated interleukin-8 production.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC211665



Western blot validation of overexpression lysate (Cat# [LY406499]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211665 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).