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Product datasheet for RC239823

KA1 (GRIK4) (NM_001282470) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KA1 (GRIK4) (NM_001282470) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRIK4
Synonyms:	EAA1; GluK4; GluK4-2; GRIK; KA1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RC239823 representing NM_001282470
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCCGCGTCTCGGCGCCTTTGGTGCTGCTTCCTGCGTGGCTCGTGATGGTCGCCTGCAGCCCGCACT
CCTTGAGGATCGCTGCTATCTTGGACGACCCCATGGAGTGCAGCAGAGGGGAGCGGCTCTCCATCACCCT
GGCCAAGAACCGCATCAACCGCGCTCCTGAGAGGCTGGGCAAGGCCAAGGTCGAAGTGGACATCTTTGAG
CTTCTCAGAGACAGCGAGTACGAGACTGCAGAAACCATGTGTCAGATCCTCCCCAAGGGGGTGGTCGCTG
TCCTCGGACCATCGTCCAGCCCAGCCTCCAGCTCCATCATCAGCAACATCTGTGGAGAGAAGGAGGTCCC
TCACTTCAAAGTGGCCCCAGAGGAGTTCGTCAAGTTCCAGTTCCAGAGATTCACAACCCTGAACCTCCAC
CCCAGCAACACTGACATCAGCGTGGCTGTAGCTGGGATCCTGAACTTCTTCAACTGCACCACCGCCTGCC
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CACGCTGTCCGTCCGCATGCTGGATGACACCCGGGACCCCACCCCGCTCCTCAAGGAGATCCGGGACGAC
AAGACCGCCACCATCATCATCCACGCCAACGCCTCCATGTCCCACACCATCCTCCTGAAGGCAGCCGAAC
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GGCGCGCCGCAGTCCCGCCGCCCCGGCCCCCCATCCCCGAGGAGCGCCGACCGCGGGGCACGGCGACGCT
CAGCAACGGGAAGCTGTGCGGGGCAGGGGAGCCCGACCAGCTCGCGCAGAGACTGGCGCAGGAGGCCGCC
CTGGTGGCCCGCGGCTGCACGCACATCCGCGTCTGCCCCGAGTGCCGCCGCTTCCAGGGCCTGCGGGCAC
GGCCGTCGCCCGCCCGCAGCGAGGAGAGCCTGGAGTGGGAGAAAACCACCAACAGCAGCGAGCCCGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

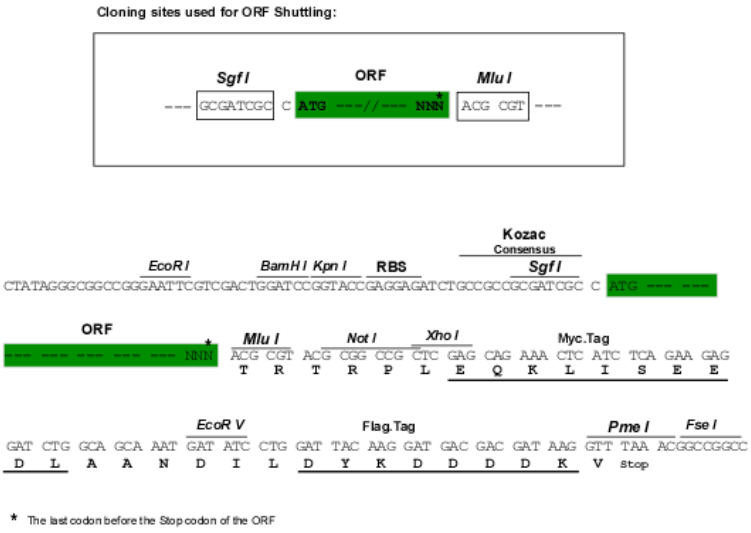
>RC239823 representing NM_001282470
Red=Cloning site Green=Tags(s)

MPRVSAPLVLLPAWLVMVACSPHSLRIAAILDDPMECSRGERLSITLAKNRINRAPERLGKAKVEVDIFE
LLRDSEYETAETMCQILPKGVVAVLGPSSSPASSSIISNICGEKEVPHFKVAPEEFVKFQFQRFTTLNLH
PSNTDISVAVAGILNFFNCTTACLICAKAECLLNLEKLLRQFLISKDTLSVRMLDDTRDPTPLLKEIRDD
KTATIIIHANASMSHTILLKAAELGMVSAYYTYIFTNLEFSLQRMDSLVDDRVNILGFSIFNQSHAFFQE
FAQSLNQSWQENCDHVPFTGPALSSALLFDAVYAVVTAVQELNRSQEIGVKPLSCGSAQIWQHGTSLMNY
LRMVELEGLTGHIEFNSKGQRSNYALKILQFTRNGFRQIGQWHVAEGLSMDSHLYASNISDTLFNTTLVV
TTILENPYLMLKGNHQEMEGNDRYEGFCVDMLKELAEILRFNYKIRLVGDGVYGVPEANGTWTGMVGELI
ARKADLAVAGLTITAEREKVIDFSKPFMTLGISILYRVHMGRKPGYFSFLDPFSPGVWLFMLLAYLAVSC
VLFLVARLTPYEWYSPHPCAQGRCNLLVNQYSLGNSLWFPVGGFMQQGSTIAPRALSTRCVSGVWWAFTL
IIISSYTANLAAFLTVQRMDVPIESVDDLADQTAIEYGTIHGGSSMTFFQNSRYQTYQRMWNYMYSKQPS
VFVKSTEEGIARVLNSNYAFLLESTMNEYYRQRNCNLTQIGGLLDTKGYGIGMPVGSVFRDEFDLAILQL
QENNRLEILKRKWWEGGKCPKEEDHRAKGLGMENIGGIFVVLICGLIVAIFMAMLEFLWTLRHSEATEVS
VCQEMVTELRSIILCQDSIHPRRRRAAVPPPRPPIPEERRPRGTATLSNGKLCGAGEPDQLAQRLAQEAA
LVARGCTHIRVCPECRRFQGLRARPSPARSEESLEWEKTTNSSEPE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

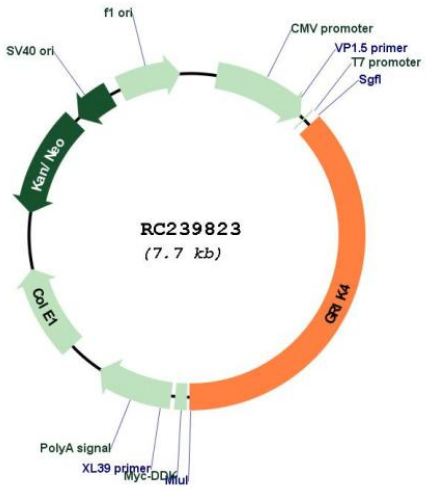
Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_001282470
ORF Size:	2868 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_001282470.2, NP_001269399.1
RefSeq Size:	5770 bp
RefSeq ORF:	2871 bp
Locus ID:	2900
UniProt ID:	Q16099
Cytogenetics:	11q23.3

Protein Families:	Druggable Genome, Ion Channels: Glutamate Receptors, Transmembrane
Protein Pathways:	Neuroactive ligand-receptor interaction
MW:	107.7 kDa
Gene Summary:	This gene encodes a protein that belongs to the glutamate-gated ionic channel family. Glutamate functions as the major excitatory neurotransmitter in the central nervous system through activation of ligand-gated ion channels and G protein-coupled membrane receptors. The protein encoded by this gene forms functional heteromeric kainate-preferring ionic channels with the subunits encoded by related gene family members. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2013]