

Product datasheet for **RC206124**

KCNF1 (NM_002236) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNF1 (NM_002236) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNF1
Synonyms:	IK8; KCNF; KH1; KV5.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC206124 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGACGGGTCCGGGAGCGCAGCCTCCGGAGCCGGCAGCCAGAGCTCCGCTGCCAGCGACGACATAG
 AGATAGTCGTC AACGTGGGGGGCGTGGCGAGGTGCTGTACGGGACCTCCTCAGTCAGTACCCTGAGAC
 CCGGCTGGCGGAGCTCATCAACTGCTTGCTGGGGCTACGACACCATTTCTCCCTGTGCGACGACTAC
 GACCCCGCAAGCGGAGTTCTACTTTGACAGGGACCCGGACGCCTTCAAGTGTGTATCGAGGTGACT
 ATTTGGGGAGGTCCACATGAAGAAGGGCATCTGCCCCATCTGCTTCAAGAACGAGATGGACTTCTGGAA
 GGTGGACCTCAAGTTCCTGGACGACTGTTGCAAGAGCCACCTGAGCGAGAAGCGGAGGAGCTGGAGGAG
 ATCGCGCGCCGCTGCAGCTCATCTGGACGACCTGGGCGTGGACGCGGCCGAGGGCCGCTGGCGCCGCT
 GCCAGAAGTGCCTCTGGAAGTTCCTGGAGAAGCCGAGTCGTCTGCCCCGCGGGTGGTGGCCGCTGCT
 CTCCTTCTGCTCATCTCGTCTCGTCCGTGGTATGTGCATGGGCACCATCCCCGAGCTGCAGGTGCTG
 GACGCCGAGGGCAACCGGTGGAGCACCCGACGCTGGAGAACGTGGAGACGGCGTGCATTGGCTGGTTCA
 CCCTGGAGTACCTGCTGCGCCTTTCTCGTCACCCAACAAGCTGCACTTCGCGCTGTCCTTCATGAACAT
 TGTGGACGTGCTGGCCATCCTCCCCTTCTACGTGAGCCTCACGCTCACGCACCTGGTGCCCGCATGATG
 GAGCTGACCAACGTGCAGCAGGCCGTGCAGGCGCTGCGGATCATGCGCATCGCGCGCATCTTCAAGCTGG
 CCCGCCACTCCTCGGGCTGCAGACCCTCACCTATGCCCTCAAGCGCAGCTTCAAGGAACGGGGCTGCT
 GCTCATGTACCTGGCAGTGGGTATCTTCGTTCTTCTGCCCTGGGCTACACCATGGAGCAGAGCCATCCA
 GAGACCCTGTTAAGAGCATCCCCAGTCTTCTGGTGGCCATCATCACCATGACCACCGTCCGCTACG
 CATCGCCCTGCCATCCACCCATCATCAACAACCTTGTCAAGTACTACAACAAGCAGCGGTCTGGAG
 ACCGCGGCCAAGCACGAGCTGGAGCTGATGGAACCAACTCCAGCAGCGGGGGCAGGGCAAGACCGGGG
 GCTCCCGCAGTGACCTGGACAACCTCCCTCCAGAGCCTGCGGGGAAGGAGGCGCCGAGCTGCAGCAGCCG
 GCTGAAGCTCTCCACAGCGACACTTCATCCCCTCCTGACCGAGGAGAAGCACACAGGACCCGGCTC
 CAGAGTTGCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206124 protein sequence
 Red=Cloning site Green=Tags(s)

MDGSGERSLPEPGSQSSAASDDIEIVNVGGVRQVLYGDLISQYPETRLAELINCLAGGYDIFSLCDDY
 DPGKREFYFDRDPDAFKCVIEVYFGEVHMKKGICPICFKNEMDFWKVLDKFLDDCCKSHLSEKREEL
 IARRVQLILDDLGVDAEGRWRRQKCVWKFLEKPESSCPARVVAVLSFLLILVSSVVMCMGTIPELQVL
 DAENRVEHPTLENVETACIGWFTLEYLLRFLSSPNKLFALSFMNIVDVLAAILPFYVSLTLTHLGARM
 ELTNVQQAVALRIMRIARIFKLARHSSGLQTLTYALKRSFKELGLLLMYLAVGIFVFSALGYTMEQSH
 ETLFKSIQSFVWAIITMTTVGYGDIYPKTTLGKLNAAISFLCGVIAIALPIHPIINNFVRYNKRQVLE
 TAAKHELELMELNSSSGGEGKTGGSRSDDLNLPEPAGKEAPSCSSRLKLSHSDTFIPLL TEEKHHRTRL
 QSCK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6682_e06.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_002236

ORF Size: 1482 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

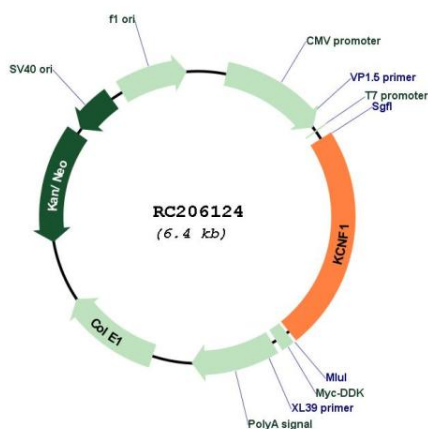
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

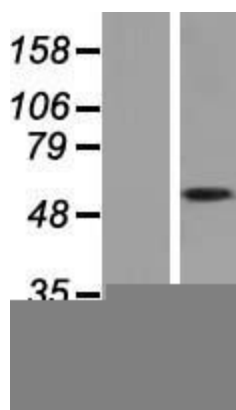
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_002236.3
RefSeq Size:	2304 bp
RefSeq ORF:	1485 bp
Locus ID:	3754
UniProt ID:	Q9H3M0
Cytogenetics:	2p25.1
Domains:	K_tetra, ion_trans
Protein Families:	Druggable Genome, Ion Channels: Potassium, Transmembrane
MW:	55.6 kDa
Gene Summary:	Voltage-gated potassium (Kv) channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. This gene encodes a member of the potassium channel, voltage-gated, subfamily F. This gene is intronless and expressed in all tissues tested, including the heart, skeletal muscle, brain, kidney, and pancreas. [provided by RefSeq, Jul 2008]

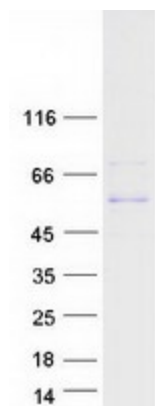
Product images:



Circular map for RC206124



Western blot validation of overexpression lysate (Cat# [LY419455]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206124 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KCNF1 protein (Cat# [TP306124]). The protein was produced from HEK293T cells transfected with KCNF1 cDNA clone (Cat# RC206124) using MegaTran 2.0 (Cat# [TT210002]).