

## Product datasheet for MR220915

### Kalrn (NM\_001164268) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Kalrn (NM\_001164268) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Kalrn  
**Synonyms:** 2210407G14Rik; AV235988; DUET; E530005C20Rik; Gm539; Hapip; TRAD  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR220915 representing NM\_001164268  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGACGGACCGCTTCTGGGACCAGTGGTATCTTTGGTATCTCCGCTTGCTTCGGCTTCTGGATCGAGGAT  
 CTTTTCGGAATGATGGTTTCAAAGCTTCTGATGTCCTTCTCATCCTAAAGGAGAAAAGTGGCCTTTGTGTC  
 TGGGGGGCGTGACAAGCGAGGTGGACCCATCCTGACCTTCCCTGCCCGAAGCAATCATGACAGAATAAGA  
 CAGGAAGACCTACGAAAACCTTGTGACGTATTTGGCCAGCGTGCCAAGTGAGGACGTTTGGAAACGTGGCT  
 TCACCGTCATCATCGACATGCGGGGCTCCAAGTGGGATCTCATCAAGCCCTCCTCAAGACGCTGCAGGA  
 AGCCTTCCCCGCGGAGATCCATGTGGCCCTCATCATCAAGCCTGACAACCTTCTGGCAGAAGCAGAAGACC  
 AACTTTGGCAGCTCCAAATTCATCTTTGAGACAAGCATGGTGTCTGTGGAGGGCCTCACGAAGCTGGTGG  
 ACCCTCCAGCTGACAGAGGAGTTTGACGGCTCCCTGGATTACAACCATGAGGAGTGGATTGAGTTGCG  
 CCTCTCCCTGGAGGAGTCTTCAACAGTGGGTCACCTGCTCTCACGCCTTGGAGACCTGCAGGAGATG  
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 AGAAAAAGGTGCTGAAGGCCCCCGTGAAGAGCTGGACCGGAGGGGCGAGCGTCTACTGCACTGCATCCG  
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 TCTGAGTCCCTCAGCCACAGCCAACACTCAAGGCGGTCCACCAGGTGCTGGATGTGGTCCACGAGG



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TGCTGCACCATCAGCGACGGCTCGAGAGCATCTGGCAGCACCGCAAGGTGCGGCTTACCAGCGGCTGCA  
GCTGTGTGCTTCCAGCAGGATGTGCAGCAGGTGCTGGACTGGATTGAAAACCATGGCGAGGCTTTCTC  
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TGCTGGAGTTTCCATGAGAAGCAGCAGGAGCTGGAGCTCAATGCGGAGCAGACGCACAAGCGGCTAGA  
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GAGATCAATGAAGAGAAACGGAAGTCAAGCTCGAAAGAAAGAGTTCATTATGGCTGAACTGCTCAAACCTG  
AGAAGGCTTATGTAAGGGACTTGACAGAGTGTGGAGACCTACCTGTGGGAGATGACTAGTGGTGTGGA  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR220915 representing NM\_001164268  
 Red=Cloning site Green=Tags(s)

MTDRFWDQWYLWYLRLLRLLDRGSFRNDGLKASDVLPIKKEKVAFVSGGRDKRGGPILTFPARSNHDRIR  
 QEDLRKLVTYLASVPSDEVCKRGFTVIIDMRGSKWDLIKPLKTLQEAFPAEIHVALIIKPDNFWQKQKT  
 NFGSSKIFETSMVSVEGLTKLVDPSTL TEEFDGSLDYNHEEWIELRSLSEEFFNSAVHLLSRLEDLQEM  
 LARKEFPVDVEGSRRLIDEHTQLKKKVLKAPVEELDREGQRLLQCIRCSDFSGRNCIPGSADFQSLVPK  
 ITSLLDKLNHSTRQHLHQMWHVRKLDQCFQLRRLFQDAEKMFWDWISHNKELFLQSHTEIGVSYQHALLDL  
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 SKHTGVGKSLHRARALQKRHDDFEEVAQNTYTADKLLAAEQLAQTGECDEEIIYKAARHLEVRIQDFV  
 RRVEQRKLLLDMSVSFHTHTKELWTWMDLQKEVLEDVCADSVDAVQELIKQFQQQTATLDATLNVIKE  
 GEDLIQQLRSAPPSLGEPTARDSAMSNNKTPHSSSI SHIESVLQQLDDAQVQMEELFHERKIKLDIFLQ  
 LRIFEQYTIIEVTAELDAWNEDLLRQMNDFNTEDLTLAEQRLQRHTERKLAMNNMTFEVIQQGQDLHQYIM  
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 QLMLKMEDRLKLVNASVAFYKTSQVCSVLESLEQYRRDEDWCGGRDKLGPAEMDHVIPLEKSHLEQK  
 EAFKACTLARRNAEVLKYIHRNNSMPSVASHTRGPEQVKAILELQRENVRVLFHWLTKKRRLDQC  
 QQYVVFERSAKQALDWIQETGEYYLSTHTSTGETTEETQELLKEYGEFRVPAKQTKKVKLLIQLADSFV  
 EKGHIHATEIRKWVTTVDKHYRDFSLRMGKYRYSLEKALGVNTEDNKDLELDIIPASLSDREVLRDANH  
 EINEEKRSARKKEFIMAELLQTEKAYRDLHECLETYLWEMTSGVVEIIPGILNKEHIIIFGNIQEIYDF  
 HNNIFLKELEKYEQLPEDVGHCFVTWADKFQMYVTYCKNKPDSNQLILEHAGTFDEIQQRHGLANSISS  
 YLIKPVQRVTKYQLLLKELLTCCEEKGELKDGLLEVMLSVPKKANDAMHVMLEGFDENLDVQGELILQD  
 AFQVWDPKSLIRKGRERHLFLFEISLVFSKEIKDSSGHTKYVYKKNLLTSELGVTEHVEGDPCKFALWSG  
 RTPSSDNKTVLKASNIETKQEWIKNIREVIQERIHLKALKPEIQLPKTPAKLRNNSKRDGVEDGDSQG  
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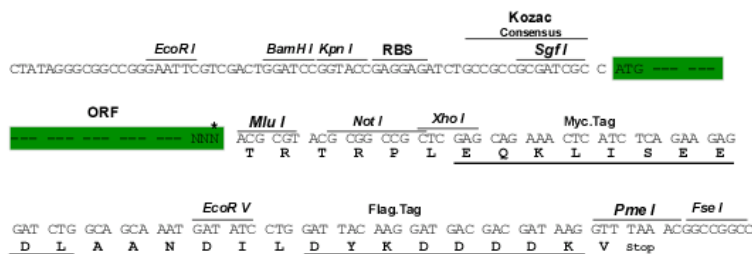
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

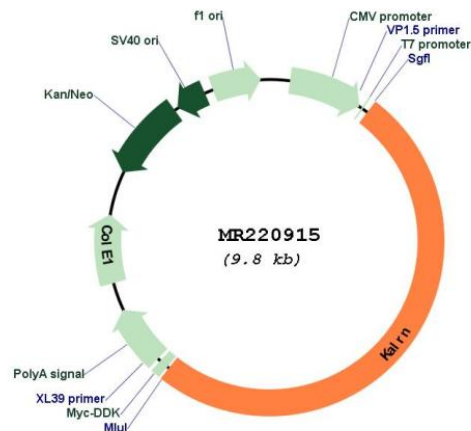
SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** NM\_001164268

**ORF Size:** 4962 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\\_001164268.1](#), [NP\\_001157740.1](#)

**RefSeq Size:** 6430 bp

**RefSeq ORF:** 4965 bp

Locus ID: 545156

UniProt ID: [A2CG49](#)

Cytogenetics: 16 B3

MW: 191.6 kDa

**Gene Summary:** Promotes the exchange of GDP by GTP. Activates specific Rho GTPase family members, thereby inducing various signaling mechanisms that regulate neuronal shape, growth, and plasticity, through their effects on the actin cytoskeleton. Induces lamellipodia independent of its GEF activity (By similarity).[UniProtKB/Swiss-Prot Function]