

## Product datasheet for MR227101

### KI (NM\_013823) Mouse Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: KI (NM\_013823) Mouse Tagged ORF Clone  
 Tag: Myc-DDK  
 Symbol: KI  
 Synonyms: alpha-kl  
 Mammalian Cell Selection: Neomycin  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 ORF Nucleotide Sequence: >MR227101 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGGATCGCC

ATGCTAGCCCGCGCCCTCCTCGCCGCCCGCGGGCTGGTGCTGCTCCGTTTGCTGTTGCTGCATCTGC  
 TGCTGCTCGCCCTGCGCGCCCGTGCCTGAGCGCTGAGCCGGGTGAGGGCGCGCAGACCTGGGCTCGCTT  
 CGCGCGCGCTCCTGCCCCAGAGGCGCTGGCTCCTCCACGACACCTTCCCCGACGGTTTCTCTGGGCG  
 GTAGGCAGCGCCCTATCAGACCGAGGGCGGTGGCGACAGCACGGCAAAGCGCGTCCATCTGGGACA  
 CTTTCACCATCACTCTGGGGCGGCCCGTCCGACTCCCCGATCGTCGTGGCGCCGTCGGGTGCCCGTC  
 GCCTCCCCGTGCTCCACTGGAGATGTGGCCAGCGATAGTTACAACAACGTCTACCGCGACACAGAGGGG  
 CTGCGCGAACTGGGGTCACTACTACCGCTTCTCCATATCGTGGGCGCGGGTGCTCCCCAATGGCACCG  
 CGGGCACTCCCAACCGCGAGGGGCTGCGTACTACCGGGGCTGCTGGAGCGGCTGCGGGAGCTGGGCGT  
 GCAGCCGGTGGTTACCCTGTACCATTGGGACCTGCCACAGCGCCTGCAGGACACCTATGGCGGATGGGCC  
 AATCGCGCCCTGGCCGACATTTAGGGATTATGCCGAGCTCTGCTTCCGCCACTTCGGTGGTCAGGTCA  
 AGTACTGGATCACCATTGACAACCCCTACGTGGTGGCTGGCACGGGTATGCCACCGGGCGCCTGGCCCC  
 GGGCGTGAGGGGAGCTCCAGGCTCGGGTACCTGGTTGCCACAACCTACTTTTGGCTCATGCCAAAGTC  
 TGGCATCTACAACACCTTTTCCGCCACACAGGGAGGCGGGTGTCTATCGCCTTAAGCTCCCATT  
 GGATCAATCCTCGAAGAATGACTGACTATAATATCAGAGAATGCCAGAAGTCTTTGACTTTGTGCTAGG  
 CTGGTTTTGCCAAACCCATATTTATTGATGGCGACTACCCAGAGAGTATGAAGAACAACCTCTCGTCTCTT  
 CTGCTGATTTTACTGAATCTGAGAAGAGGCTCATCAGAGGAACTGCTGACTTTTTTGTCTCTCTCTTCG  
 GACCAACCTTGAGCTTTAGCTATTGGACCCTAACATGAAGTCCGCCAATTGGAGTCTCCCAACCTGAG  
 GCAGCTTCTGTCTGGATAGATCTGGAATATAACCACCCTCCAATATTTATTGTGAAAAATGGCTGGTTT  
 GTCTCGGGAACCAAAAAGGATGATGCCAAATATATGTATTATCTCAAGAAGTTCATAATGAAAACCT  
 TAAAAGCAATCAGACTGGATGGGTGACGTCATTGGGTACACCGCGTGGTGCCTCATGGACGGTTTCGA  
 GTGGCATAGGGGCTACAGCATCCGGCGAGGACTTCTACGTTGACTTTCTGAGTCAGGACAAGGAGCTG



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TTGCCAAAGTCTTCGGCCTTGTTCTACCAAAAGCTGATAGAGGACAATGGCTTTCCTCCTTACCTGAAA  
 ACCAGCCCCTGAAGGGACATTTCCCTGTGACTTTGCTTGGGGAGTTGTTGACAACACTACGTTCAAGTGGA  
 CACTACTCTCTCAGTTTACTGACCCGAATGTCTATCTGTGGGATGTGCATCACAGTAAGAGGCTTATT  
 AAAGTAGACGGGGTTGTAGCCAAGAAGAGAAAACCTTACTGTGTTGATTTCTCTGCCATCCGGCCTCAGA  
 TAACCTTACTTCGAGAAATGCGGGTCACCCACTTTCGCTTCTCCCTGGACTGGGCCCTGATCTTGCCCT  
 GGGTAACCAGACCAAGTGAACCACACGGTCTGCACTTCTACCGCTGCATGATCAGCGAGCTGGTGCAC  
 GCCAACATCACTCCAGTGGTGGCCCTGTGGCAGCCAGCAGCCCGCACCAAGGCCTGCCACATGCCCTTG  
 CAAAACATGGGGCTGGGAGAACCAGCACACTGCTCTGGCGTTTGCAGACTACGCAAACTGTGTTTTAA  
 AGAGTTGGGTCACTGGTCAATCTCTGGATCACCATGAACGAGCCAAACACGGAACATGACCTATCGT  
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 AGAAAGGCAAAATATCCATCGCCTTGCAGGCTGACTGGATAGAACCAGGCCTGCCCTTCTCTCAAAATGA  
 CAAAGAAGTGGCCGAGAGAGTTTTGGAATTTGATATAGGCTGGTGGCAGAGCCTATTTTTGTTCCGGA  
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 CTAACCTCTCCAGTCAAGTGGCAGTGGTGCCTTGGGGGCTGCGCAAAGTCTCAACTGGCTAAGGTTCA  
 AGTACGGAGACCTCCCGATGTATGTGACAGCAATGGAATCGATGATGACCCCCACGCCGAGCAAGACTC  
 ACTGAGGATCTATTATTAAGAATTATGTGAATGAGGCTCTGAAAGCCTACGTGTTGGACGACATCAAC  
 CTTTGTGGCTACTTTGCGTATTCACCTTAGTGATCGCTCAGCTCCCAAGTCTGGCTTTTATCGATATGCTG  
 CGAATCAGTTTGGACCAAACTCTATGAAACATTACAGGAAAATTATTGACAGCAATGGCTTCTCTGGG  
 TTCTGGAACACTGGGAAGTTTTGTCCAGAAGAATACACTGTGTGCACCGAATGTGGATTTTTCAAACC  
 CGGAAGCTTTGCTGGTCTTCACTCTCGTTTCTGTTTTACTTTTATTATTTCTCTTGTCTCATTTTTTC  
 ACTACTCCAAGAAAGGCCAGAGAAGTTATAAG

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR227101 protein sequence  
 Red=Cloning site Green=Tags(s)

MLARAPRRPRLVLLRLLLLHLLLLALRARCLSAEPGQAQTWARFARAPAPEAAGLLHDTFPDGFLWA  
 VGSAAAYQTEGGWRQHKGASIWDTFTHHSGAAPSDSPIVVAPSGAPSPPLSSTGDVASDSYNNVYRDEG  
 LRELGVTHYRFSISWARVLPNGTAGTPNREGLRYRLLERLRELGVQPVVTLYHWDLPQRLQDITYGGWA  
 NRALADHFRDYAELCFRHFQQVYKWIIDNPVYVAWHGYATGRLAPGVRGSSRLGYLVAHNLLLAHAKV  
 WHLYNTSFRPTQGGRVSIASSHWINPRMTDYNIRECQKSLDFVLGWFAPKPIFIDGDYPESMKNLSSL  
 LPDFTESEKRLIRGTADFFALSGPTLSFQLLDPNMKFRQLESPNLRQLLWIDLEYNHPPIFIVENGWF  
 VSGTTKRDDAKYMYLKKFIMETLKAIRLDGVDVIGYTAWSLMDGFEWHRGYSIRRGLFYVDFLSQDKEL  
 LPKSSALFYQKLIEDNGFPPLPENQPLEGTFPCDFAWGVVDNYVQVDTTLLSQFTDPNVYLWDVHHSKRLI  
 KVDGVVAKKRKPYCVDFSAIRPQITLLREMRVTHFRFSLDWALILPLGNQTQVNHTVLHFYRCMISELVH  
 ANITPVVALWQPAAPHQGLPHALAKHGAWENPHTALAFADYANLCKELGHWVNLWITMNEPNTRNMTYR  
 AGHLLRAHALAWHLYDDKFRAAQKGIISIALQADWIEPACPFSSQNDKEVAERVLFEFDIGWLAEPIFGSG  
 DYPRVMDWLNQKNNFLLPYFTEDEKLVRSFDFLAVSHYTTILVDWEKEDPMKYNDYLEVQEMTDITW  
 LNSPSQVAVVPWGLRKVLNWLRFKYGDLPMYVTANGIDDDPHAEQDSLRIYYIKNYVNEALKAYVLDIN  
 LCGYFAYSLSDRSAPKSGFYRYAANQFEPKPSMKHYRKIIDSNGFLGSGTLGRFCPEEYTVCTECGFFQT  
 RKSLLVFISFLVFTFIISLALIFHYSKKGQRSYK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_013823

**ORF Size:** 3045 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](mailto: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.

**RefSeq:** [NM\\_013823.2](#), [NP\\_038851.2](#)

**RefSeq Size:** 5124 bp

**RefSeq ORF:** 3045 bp

**Locus ID:** 16591

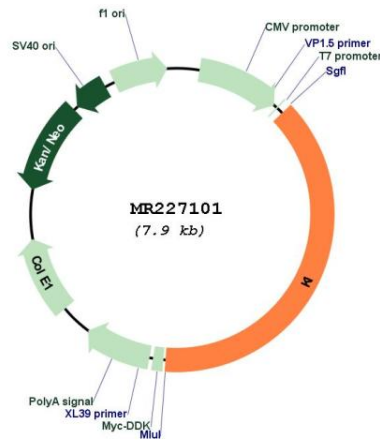
**UniProt ID:** [O35082](#)

**Cytogenetics:** 5 G3

**MW:** 116.4 kDa

**Gene Summary:** May have weak glycosidase activity towards glucuronylated steroids. However, it lacks essential active site Glu residues at positions 241 and 874, suggesting it may be inactive as a glycosidase in vivo. May be involved in the regulation of calcium and phosphorus homeostasis by inhibiting the synthesis of active vitamin D. Essential factor for the specific interaction between FGF23 and FGFR1.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR227101