

Product datasheet for SC114760

KPI2 (LMTK2) (NM_014916) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KPI2 (LMTK2) (NM_014916) Human Untagged Clone
Tag:	Tag Free
Symbol:	KPI2
Synonyms:	AATYK2; BREK; cprk; hBREK; KPI-2; KPI2; LMR2; PPP1R100
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_014916 edited
 ATGCCGGGGCCCGCGCGTTGCGGCGGAGGCTGCTGCTGCTGCTGGTCCCTCCTGATC
 GCCGGCAGTGCTGGGGCCGCGCCACTTCCGCAAACAGGTGCAGGGGAGGCGCCACCTGCT
 GCAGAAGTTTCCTCATCTTTTGTGATCCTGTGTGTGTCAGTTAATAATATTAATAGTG
 TTAATTGCAAACGTGTATCCTGCTGTAAGGACCCAGAAATAGACTTTAAGGAATTTGAA
 GATAATTTTGTGATGAGATAGATTTTACACCACCAGCAGAAGACACTCCCTCTGTTTCAG
 TCCCCAGCAGAGGTCTTACACTTTTCACTACCAATATTTCACTCCAGCTCCCTCGCAA
 TTCCAGCCTTCTGTAGAGGGATTGAAGTCTCAAGTTGCCCGCCACAGTCTAAACTACATA
 CAGGAAATGGAAATGGCTGGTTTGGAAAGTTTCTTTGGGAGAGATTTACACGGGCACT
 AGCGTAGCAAGAGTCATCGTAAGGAGTTAAAAGCAAGTGCCAACCCAAAGGAACAAGAT
 ACTTTTTTGA AAAATGGAGAACCTTACTACATTCTTCAAGCATCCAAATATTCTTCAAGTGT
 GTTGGACAGTGCGTAGAAGCGATTCCCTACCTCCTGGTGTGTTGAGTTCTGTGACTTGGGT
 GACCTGAAGGCGTATCTGCGCAGCGAGCAGGAGCACATGCGGGGGGACTCACAGACCATG
 CTGCTGCAGAGGATGGCGTGCAGGTCGCGCGGGGCTGGCCGCCATGCACAAGCTGCAC
 TTCTGTCACAGTGATTTAGCCCTGCGGAATGTTTTCTCACCTCCGACTTAAATGTGAAA
 GTGGGAGATTACGGAATAGGATTCAGCAGGTACAAGGAGGATTATATTGAAAACAGATGAT
 AAAAAAGTTTTCCCTCTGCGATGGACTGCTCCAGAATTAGTAACCAGCTTCAAGACAGA
 CTGCTAACTGCAGATCAGACTAAGTATAGTAATATCTGGTCTCTGGGTGTGACACTTTGG
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 CAAGTATTAGAGAGAGAGACACAAAACCTCCCGAAGCCCAAGCTGGAGCAGCCCTACTCT
 GATAGATGGTATGAAGTCTTACAGTTCTGTTGGCTGTCAACAGAAAAGAGACCCGCGCT
 GAAGATGTGCACAGGCTGCTGACTTACCTGCGGCTGCAGAGCCAGCGGGACTCAGAGGTC
 GACTTTGAACAGCAGTGGAACGCTCTGAAGCCGAACACAAAACAGCAGAGACTCCTCCAAC
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 GCTAAGCAGGACCACTTTGACGAGCGCAGCCGGGGCCACCTGGACGAAGGCTTGCCTAC
 ACGAGCATCTTCTATCCGGTTGAAGTTTTTGTGAGAGTTCGCTTTCAGATCCTGGGCCGGA



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AAGCAAGATGACAGCGGCCAGGATGTCCCCCTGAGGGTCCCTGGAGTGGTTCCTGTTTT
 GATGCCCAACCTTTCTGTTGGAAGCGACTATTATATCCAGTTAGAAGAAAAAGTGGT
 AGTAACTTGGAGCTTGATTACCCACCAGCGCTGCTCACAACCGACATGGATAATCCAGAA
 AGGACTGGCCCTGAACTGTCCCAGCTCACGGCGCTCAGGAGCGTTGAACTTGAGGAGTCC
 AGTACAGATGAGGACTTCTTCCAAGCAGTACAGACCCCAAGACTCTAGCTTACCAGGG
 GACTTACACGTGACCAGTGGCCCCGAGAGCCCTTCAACAATATATTTAATGATGTGGAC
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 ATAACAGGCCACTTTGAGAAAGAAAAGCCCGTAAAGTTTTTGACAGTGAGCCTCTCTGC
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 GAGTGGACCTTGATCCCGCTCCCGAGGGCACCAGACTCAGAACCCAGCCACCACGGGC
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 CTCCTCCGAGCAAAGTCTGCTGCCAGGATAGTGCCTGGAAGCCAGAAAGAGCCAGCCA
 GATGAAAGTTGTCTGTCTGCTTTGCACAACCTCCAGTGACCTGGAATTAAGAGCCACGCCG
 GAGCCAGCACAGACTGGTGTTCACAGCAGGTGCATCCCACGGAAGACGAGGCCAGCAGT
 CCCTGGAGTGTGCTGAATGCAGAACTTAGCAGCGGCGATGACTTCGAGACACAGGACGAT
 CGCCCCTGACCCCTCGCTTCCACGGGGACCAACACGAACGAACCTCTGCCTACACCAAT
 TCTGCGCTGGACAAGTCCCTGTCCAGCCACTCCGAGGGCCCGAAGTTGAAGGAGCCGGAC
 ATCGAAGGGAAGTACCTGGGAAACTCGGGGTGTCAGGGATGCTCGACCTCTCAGAGGAC
 GGGATGGATGCAGACGAGGAGGACGAAAAACAGCGACGACTCGGACGAGGACCTGCGGGCC
 TTCAACCTGCATAGCCTCAGCTCCGAGTCGGAGGACGAGACCCAGCACCCCGTGCCTATC
 ATCCTCAGCAACGAGGACGGAAGGCACCTGCGGAGTCTGTTGAAGCCACAGCGGCAAT
 GCCCCGACCCACTGCCCGAGGACTGGAAGAAGGAAAAGAAGGCAGTCACTTTTTTCGAT
 GATGTCACAGTCTACCTGTTTGACCAGGAGACCCCAACCAAGAGCTGGGGCCCTGTGGA
 GGAGAGGCGTGCGGCCCGACCTGAGCGGCCAGCCCCAGCCTCAGGCTCTCCCTACCTG
 AGCAGGTGCATCAACTCCGAAAGCTCCACCGACGAAGAAGGTGGTGGCTTTGAGTGGGAT
 GATGACTTCTCCAGATCCTTTTATGTCAAAGACAACAAGTAACCTGCTCAGCTCCAAG
 CCTTCTCTCAAACATCCAAGTACTTTTCTCCGCCGCCACCGGCCGGAGCACGGAGCAG
 AGCTGGCCGCACTCGGCCCTTACTCCCGGTTCTCCATCTCTCCCGCAACATTGCCAGC
 TTTTCCCTCACACACTGACCGACTCGGACATCGAGCAGGGCGGAAGCAGCGAAGACGGA
 GAAAAGGACTAG

5' Read Nucleotide Sequence:	>OriGene 5' read for NM_014916 unedited AACGTCACGCGCCCTTGCCGCTAAGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAA GCAGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTTCTTTTTGCAGCGGCCG CGAATTCGGCAGCAGGGCGGGAGCGCGGCTTCCCAGGCCCGCGCTCCGCAGGGCTG CTGGCGTTGCTGCTGTTGAGAGGCGGCGGCGGCGCAGGCGGGCGGGAAGGATGGTGT TTCTGCGACTGGAGCGGCAGGTGCGGACCGGGAGCCGGACCGAGTGTGGCAGAAGCAAC GTGTGCTCGGGAGCAACCGCGCGGGTGCCACTGAGGCAGCGGAGGGAGGCAGGATCGAC TGACGGGCGAACGACGGACGGACGGAAAGGCGACTCGAGGGCCGGCCCGGAGCCGCGCC GTGGGCGAGATGCCGGGGCCCGCGGCTTGCGGCGGAGGCTGCTGCTGCTGCTGCTGCTG CTCCTGATCGCCGGCAGTGTGGGGCCGCGCCACTTCCGCAAACAGGTGCAGGGGAGGCG CCACCTGCTGCAGAAGTTTCTCATCTTTGTGATCCTGTGTGTGTCAGTTTAATAATA TTAATAGTGTAAATTGCAAAGTGTATCCTGCTGTAAGGACCCAGAAATAGACTTTAAG GAATTTGAAGATAATTTGATGATGAGATAGATTTACACCACCAGCAGAAGACTCCC TCTGTTCACTCCCGAGCAGAAGTCTTCACTTTCACTACCAAATATTTCACTCCAGCT CCCTCGCAATTCAGCCTCTGTAGAGGGATGAAGTCTCAAGTGCCCGCACAGTCTAACT CCTACAGGAAATGAAAGGCTGGTTTAAAAGGTCTCTTGGGAGAGATTCACGGGCCAG CGTAACAGGA
Restriction Sites:	NotI-NotI
ACCN:	NM_014916
Insert Size:	5000 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<u>NM_014916.2</u> , <u>NP_055731.2</u>
RefSeq Size:	5602 bp
RefSeq ORF:	4512 bp
Locus ID:	22853
UniProt ID:	<u>Q8IWU2</u>
Cytogenetics:	7q21.3
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane

Gene Summary:

The protein encoded by this gene belongs to the protein kinase superfamily and the protein tyrosine kinase family. It contains N-terminal transmembrane helices and a long C-terminal cytoplasmic tail with serine/threonine/tyrosine kinase activity. This protein interacts with several other proteins, such as Inhibitor-2 (Inh2), protein phosphatase-1 (PP1C), p35, and myosin VI. It phosphorylates other proteins, and is itself also phosphorylated when interacting with cyclin-dependent kinase 5 (cdk5)/p35 complex. This protein involves in nerve growth factor (NGF)-TrkA signalling, and also plays a critical role in endosomal membrane trafficking. Mouse studies suggested an essential role of this protein in spermatogenesis. [provided by RefSeq, Oct 2009]