

## Product datasheet for **SC323332**

### **CAMKIV (CAMK4) (NM\_001744) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CAMKIV (CAMK4) (NM_001744) Human Untagged Clone
Tag:	Tag Free
Symbol:	CAMKIV
Synonyms:	caMK; CaMK-GR; CaMK IV; CaMKIV
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC323332 sequence for NM\_001744 edited (data generated by NextGen Sequencing)

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ATGCTCAAAGTCACGGTGCCTCCTGCTCCGCCTCGTCTGCTCTTCGGTCACCGCCAGT
GCGGCCCGGGGACCGCAGCCTCGTCCCGGATTACTGGATCGACGGCTCCAACAGGGAT
GCGCTGAGCGATTTCTTCGAGGTGGAGTCGGAGCTGGGACGGGGTGTACATCCATTGTG
TACAGATGCAAAACAGAAGGGGACCCAGAAGCCTTATGCTCTCATGGTGTTAAAGAAAACA
GTGGACAAAAAATCGTAAGAAGTGAAGTGGAGTTCCTTCGCCTCTCACATCCAAAC
ATTATAAAACTTAAAGAGATATTTGAAACCCCTACAGAAATCAGTCTGGTCTAGAACTC
GTCACAGGAGGAACTGTTGATAGGATTGTGAAAAGGGATATTACAGTGAGCGAGAT
GCTGCAGATGCCGTTAAACAAATCCTGGAGGCAGTTGCTTATCTACATGAAAATGGGATT
GTCCATCGTGATCTAAACCAGAGAATCTTCTTTATGCAACTCCAGCCCCAGATGCACCA
CTCAAAATCGTGATTTTGGACTCTCTAAAATTGTGGAACATCAAGTGCTCATGAAGACA
GTATGTGGAACCCAGGGTACTGCGCACCTGAAATTCCTAGAGTTGTGCCTATGGACCT
GAGGTGGACATGTGGTCTGTAGGAATAATCACCTACATCTTACTTTGTGGATTTGAACCA
TTCTATGATGAAAGAGGGCATCAGTTCATGTTCCAGGAGAATTCTGAATTGTGAATATTAC
TTTATCTCCCCCTGGTGGATGAAGTATCTCTAAATGCCAAGGACTTGGTCAGAAAAATTA
ATTGTTTTGGATCCAAAGAAACGGCTGACTACATTTCAAGCTCTCCAGCATCCGTGGGTC
ACAGGTAAGCAGCCAATTTTGTACACATGGATACCGCTCAAAAGAAGCTCCAAGAATTC
AATGCCCGGCGTAAGCTTAAGGCAGCGGTGAAGGCTGTGGTGGCCTTCCCCGCCTGGGA
AGTGCCAGCAGCAGCCATGGCAGCATCCAGGAGAGCCACAAGGCTAGCCGAGACCCTTCT
CCAATCCAAGATGGCAACGAGGACATGAAAGCTATTCCAGAAGGAGAGAAAATTCAGGC
GATGGGGCCCAAGCCGCGTAAAGGGGGCACAGGCTGAGCTGATGAAGGTGCAAGCCTTA
GAGAAAATTAAGGTGCAGATATAAATGCTGAAGAGGCCCAAAATGGTGGCCCAAGGCA
GTGGAGGATGGGATAAAGGTGGCTGACCTGGAAGTGAAGGAGGGCCTAGCAGAGGAGAAG
CTGAAGACTGTGGAGGAGCAGCAGCTCCAGAGAAGGGCAAGGAAGCTCTGCTGTGGT
TTTGAAGTTCCACAGCAAGATGTGATCCTGCCAGAGTACTAA

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Clone variation with respect to NM\_001744.4  
 224 a=>t;225 a=>g

**5' Read Nucleotide Sequence:** >OriGene 5' read for mutant NM\_001744 unedited

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ACGGTACGACGACCAACGAGCGGAGCGCGCACGGCGAGGGCACACAAGCAGACAGCCAGCGAACCGC
CAGAACCCCGAAACACGACCCACAAAGGGCGGCGGAAACCCGGCAGAGGGCGGGCGGGCGGGCGG
CCACCGGAGCCCCGCGGGAAGAAGCACAAAGCCACGGTGCCCCCGCCCCGCTCGTCTGCTTTCCG
GTCACCGCCAGCGCGGCCCGGGGACCGCGAGCCTCGTCCCGGATACTGGATCGACGGCTCCAACAGGGA
TGCGCTGAGCGATTTCTTCGAGGTGGAGTCGGAGCTGGGACGGGGTGTACATCCCTTTGTGGTACAG
ATGCAAAACAGAAGGGGACCCAGAAGCCTTATGCCTCTCAGGGTGTTAAAGAAAACATTGACCAAAAAA
TCGTAGAACCCTGAAATAGGATTTCTTCTTGGCCTTCTCACATCCAACCTTTATAAAACTTAAGGAGATT
TTTGAACCCCTACAAAATTCATTCTGGTCTTAACTTGTTCGAAGAAGGAAAACCTGTTGAATGGATTG
GGGAAAAAGGAATTTTACGTGAGCGCGGATGCGCTCCAAATGCCGTTAAACAAACCCGGGAACCATTTT
GCTTTCTATATGAGAAAATGGATTTTCCCTCGATCTCACACACAAGAGACTCTTTTACAATCTACCGC
CCGATATACATCACAAACGCTGATATTGGCTCTCTAAATGTGGACATCACATGCTCTCGAGACAATTG
TGGAAACCCCGGTGCTCGCCACCTGAATCTAAAGTGTGCCTAGGACCGAGTGACTGTGCTAGAAAATACC
TCACCTTACTGGATGAGCCTATGAGAAGGCACTGCTAGTCGGATTCGATTGCATCCTGCCTTGGTGAAG
TCACTAGCCCGCCTGCCACAATGTCGTGACACACC

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**Kinase Domain Sequence:** >SC323332 kinase domain raw sequence. By performing [BLASTX](#) analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation

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CSTTKMGAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTC
AGAATTTTGTAAACGACTCACTATAGGCGGCCGGAATTCGGCACGAGCGGGCGGGCGGGCGGGCGG
TTCCGGAGTCCCCTGCGAAGATGCTCAAAGTCACGGTGCCTCTGCTCCGCTCGTCTGCTCTTCGG
TCACCGCCAGTGGGCCCCGGGACCGCAGCCTCGTCCCGATT

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<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_001744
<b>Insert Size:</b>	2620 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." <a href="#">Cell, 2008 May p536-548.</a>
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_001744.3</a> , <a href="#">NP_001735.1</a>
<b>RefSeq Size:</b>	2168 bp
<b>RefSeq ORF:</b>	1422 bp
<b>Locus ID:</b>	814
<b>UniProt ID:</b>	<a href="#">Q16566</a>
<b>Cytogenetics:</b>	5q22.1
<b>Domains:</b>	pkinase, TyrKc, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Calcium signaling pathway, Long-term potentiation, Neurotrophin signaling pathway
<b>Gene Summary:</b>	The product of this gene belongs to the serine/threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. This enzyme is a multifunctional serine/threonine protein kinase with limited tissue distribution, that has been implicated in transcriptional regulation in lymphocytes, neurons and male germ cells. [provided by RefSeq, Jul 2008]