

Product datasheet for SC117810

CASK (NM_003688) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CASK (NM_003688) Human Untagged Clone
Tag:	Tag Free
Symbol:	CASK
Synonyms:	CAGH39; CAMGUK; CMG; FGS4; hCASK; LIN2; MICPCH; MRXSNA; TNRC8
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_003688 edited
 ATGGCCGACGACGACGTGCTGTTTCGAGGATGTGTACGAGCTGTGCGAGGTGATCGGAAAG
 GGTCCCTTCAGTGTGTACGACGATGTATCAACAGAGAAACTGGGCAACAATTTGCTGTA
 AAAATTGTTGATGTAGCCAAGTTCACATCAAGTCCAGGGTTAAGTACAGAAGATCTAAAG
 CCGGAAGCCAGTATCTGTCATATGCTGAAACATCCACACATTGTAGAGTTATTGGAGACA
 TATAGCTCAGATGGAATGCTTTACATGGTTTTTCGAATTTATGGATGGAGCAGATCTGTGT
 TTTGAAATCGTAAAGCGAGCTGACGCTGGTTTTGTGTACAGTGAAGCTGTAGCCAGCCAT
 TATATGAGACAGATACTGGAAGCTCTACGCTACTGCCATGATAATAACATAATTCACAGG
 GATGTGAAGCCCACTGTGTTCTCCTTGCCTCAAAGAAAACCTCGGCACCTGTTAAACTT
 GGAGGCTTTGGGTAGCTATTCAATTAGGGGAGTCTGGACTTGTAGCTGGAGGACGTGTT
 GGAACACCTCATTATGGCACCAGAAGTGGTCAAAGAGAGCCTTACGGAAAGCCTGTA
 GACGCTGGGGGTGCGGTGTGATCCTTTTTATCCTGCTCAGTGGTTGTTTGCCTTTTTAC
 GGAACCAAGAAAAGATTGTTGAAGGCATTATTAAGGAAAATATAAGATGAATCCAAGG
 CAGTGGAGCCATATCTCTGAAAGTGCCAAAGACCTAGTACGTCGCATGCTGATGCTGGAT
 CCAGCTGAAAGGATCACTGTTTATGAAGCACTGAATCACCCATGGCTTAAGGAGCGGGAT
 CGTTACGCCTACAAGATTCATCTCCAGAAACAGTAGAGCAGCTGAGGAAATTCATGCA
 AGGAGGAACTAAAGGTGACGACTAGCCGCTGTGTCAAGTCACAAATCAACTCATTCT
 TATGGGGATCCCCTGAAGAGTTACCAGATTTCTCCGAAGACCCTACCTCCTCAGGAGCA
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 GACCTAGATTTTCTACACAGTGTTCAGGATCAGCATTTACACACTACTAGATCTG
 TATGACAAAATTAACACAAAGTCTTACCACAAAATCAGGAATCCTCCAAGCGATGCACTA
 CAGAGAGCCAAAGAGGATTGGAAGAAATTTTATGTTACCCTGAGAATAACGACGCAAAG
 GAACTAAAGCGTATTTTAAACACAACCTCATTTCATGGCCTTACTTCAGACTCACGACGTA
 GTGGCACATGAAGTTTACAGTGTGAAGCATTGAGGGTACACCTCCTCCCACCTCTCCC
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 ATGAATGAACTAAATCATTGTATTGTTGCAAGAATTATGCATGGGGGCATGATTCACAGG



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CAAGGTACACTTCATGTTGGTGATGAAATTCGAGAAATCAATGGCATCAGTGTGGCTAAC
 CAAACAGTGGAACTGCAAAAAATGCTTAGGGAAATGCGGGGGAGTATTACCTTCAAG
 ATTGTGCCAAGTTACCGCACTCAGTCTTCGTCCTGTGAGGACTTGCCATCAACTACCCAA
 CCAAAAGGACGACAGATCTATGTAAGAGCACAATTTGAATATGATCCAGCCAAGGATGAC
 CTCATCCCCTGTAAGAAGCTGGCATTGATTTCAGAGTTGGTGACATCATCCAGATTATT
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 ACCAAACAGGAGCAGCAGGCCAGCTGACTTGGTTTGGCAAGAAAAAGAAGCAGTACAAA
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 ATAATTATTGTCATGTCCGAATAGATAGGAGGAGAAAAACAATTACACTAATTTAAAG
 AGACAGTATCTTTTTAATCAGTTCTCCTAAACTTTAATAAAAATGATCTTTAAATGTAT
 GTATTATTCAATCCTTTGGAATGTTATATTTTTGGAAATCATAGCTTTTTATTTCGAAGG
 CCCCTAAAAACTGCACAAAATAGATGCTGCTTTCTATAATCTATTTTAAATAATAA
 AATGATTCTGTTACCTTGAAAAAATAAAAAAATAAAAACTCGACTCTAGATTGCGGCCGC
 GGTCTAGCTGTTTCTGAAACAGATCCCGGGTGGCATCCCTGTGACCCCTCCCCAGTGCC
 TCTCTGGCCCTGGAAGTTGCCACTCCAGTGCCACCAGCCTTG

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_003688 unedited
 ATACGACTCACTATAGGGCGGCCGAATTCGGCACGAGGCCGTTTTCGAAGCCCTCCAC
 GCTGCGGCCGCTATCCCCTCCGGACCATGGCCGACGACGACGTGCTGTTTCGAGGATGTGT
 ACGAGCTGTGCGAGGTGATCGGAAAGGGTCCCTTCAGTGTGTACGACGATGTATCAACA
 GAGAACTGGGCAACAATTTGCTGTAAAAATTGTTGATGTAGCCAAGTTCACATCAAGTC
 CAGGGTTAAGTACAGAAGATCTAAAGCGGGAAGCCAGTATCTGTCATATGCTGAAACATC
 CACACATTGTAGAGTTATTGGAGACATATAGCTCAGATGGAATGCTTTACATGGTTTTCG
 AATTTATGGATGGAGCAGATCTGTGTTTTGAAATCGTAAAGCGAGCTGACGCTGGTTTTG
 TGTACAGTGAAGCTGTAGCCAGCCATTATATGAGACAGATACTGGAAGCTCTACGCTACT
 GCCATGATAATAACATAATTACAGGGATGTGAAGCCCCACTGTGTTCTCCTTGCCTCAA
 AAGAAAATCGGCACCTGTTAACTTGGAGGCTTTGGGGTAGCTATTCAATTAGGGGAGT
 CTGGACTGTAGCTGGAGGACGTGTTGGAACACCTCATTNTATGGCACCAGAAGTGGTCA
 AAAGAGAGCCTTACGAAAGCCTGTANACGTCTGGGGTGCAGTGTGATCCTTTNTATCC
 TGCTCAGTGGGNTGTTGCCTTTNTACNGNNAACCAAGNAAGATTTGTTGAAGGCTTATTAA
 AGGGAAATATTAGATGAATCCAGGCAGTGGAGCCATATCTCTGAAAGTGCCAAGACCTA
 NTACGTCGCATGCTGATGCTGGATCCANCTGAAGGATCACTGTNTATGAAGCCTGAATCA
 CCATGGCTTAGGAGCGGNNATCGTACGCTACAGATCATCTTCAGAACAC

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_003688 unedited CCGCGGCCGAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTCAAGGAAACAGAATCA TTGTTTATTATTATTAATAATAGATTATAGAAAGCAGCATCTATTTTGTGCAGTTTTTAGG GGCCTTGGAAATAAAAAGCTATGATTTCCAAAAATATAACATTCCAAAGGATTGAATAAT ACATACATTTAAAGATACATTTTATTAAGTTTAGGAGAACTGATTAATAAAGATACTGT CTCTTTAAATTAGGGTGAATTGTTTTTCTCCTCCTATCTATTTCGGACATGACAATAATT ATAAATGTAGGTCACACTACAACACTAGGTAGTCTCTAGGGACCATGACCTGCTGACACAAG GCCGATAACAAAGAGGCTTTTCCACAAATGAGGTGCTCCAGTTATGCTCAGATATCTGG GGAGAGGCCTAATAGACCCAGGAGACAGGGACCCACTGTGGGGCTGTGCACACGAGCTCA ACAGCTTCCCTCCAGATGTCTGATTGTCTCATCAATTTTATTGTTGATAATTGGGAGATCG AAGTAGTGTGCATATGTTCTCTGTAAGATGTCAGACTCCTTCTGCAGACGCTGAAGAGAT TCATCCTCATTTAAACCTGNAGTAATAGTTGGTGCCACAATGAAAACAACAAAAGGACCA AACTCTGCAATTCTCAAGACCTTAGTGCCTGAAGCTCCACGTCCAGTATTGCAATCAGC CCCTGCTCGTGGATCTTCCGGATGGTCTCCAGTTTTGTCCATACATGCATCCCTGTGGT TGCCGTACTCCAAGACTTCGTATAAGAAATGCCTTGATCATTGTTGCCATGAGAAACAAA GAATAATTCCTCTCCTTTTCTTCCCTTTTTTCTGAGTCCGGTTGATGGGAAAAAGGCAC CCAAACCGGTTCGGTGCCTTGGGAAAAAAGGTTTTAATTGGCTTTTCCAAACCTGGGC N
Restriction Sites:	NotI-NotI
ACCN:	NM_003688
Insert Size:	3490 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_003688.1</u> , <u>NP_003679.1</u>
RefSeq Size:	3122 bp
RefSeq ORF:	2766 bp
Locus ID:	8573
UniProt ID:	<u>Q14936</u>
Cytogenetics:	Xp11.4
Domains:	pkinase, TyrKc, SH3, PDZ, S_TKc, L27, Guanylate_kin, GuKc

Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Tight junction

Gene Summary: This gene encodes a calcium/calmodulin-dependent serine protein kinase. The encoded protein is a MAGUK (membrane-associated guanylate kinase) protein family member. These proteins are scaffold proteins and the encoded protein is located at synapses in the brain. Mutations in this gene are associated with FG syndrome 4, intellectual disability and microcephaly with pontine and cerebellar hypoplasia, and a form of X-linked intellectual disability. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2017]
Transcript Variant: This variant (1) represents the longest transcript and encodes the longest protein (isoform 1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.