

Product datasheet for **MR217036**

Sgk3 (NM_001037759) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sgk3 (NM_001037759) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sgk3
Synonyms:	2510015P22Rik; A330005P07Rik; Cisk; fy; fz
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR217036 representing NM_001037759
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAGAGGGATTGTATCATGGACTACAAGGAGAGCTGCCAAGTGAAGCATTCCAGCTCTGACGAAC
 ACAGAGAGAAAAAGAAGAGGTTACGGTTTATAAAGTTCTGGTCTCTGTGGGCAGAAGCGAGTGGTTGT
 CTTCAGGAGATACGCAGAGTTTGACAACTTTACAATTCTTTAAAGAAGCAGTTTCTGCTATGGCTCTG
 AAGATTCTGCCAAGAGAATATTTGGTGATAATTTTATCCAGATTTTATAAACAAAGAAGAGCAGGAT
 TGAATGAGTTCATTCAGAACTTGGTCAGATATCCAGAGCTTTACAACCATCCAGATGTCCGAGCATTCT
 TCAATGGACAGCCCAAGACATCAGTCAGATCCATCTGAAGATGAGGATGAAAGAAGTACTTCGAAGCCA
 CATTCTACCTCACGGAACATCAACCTGGGACCACTGAAATCCTCATGCTAAACCACTGACTTCGATT
 TTTTAAAAGTTATTGAAAGGGCAGCTTTGGCAAGTTCTTCTTGCAAAACGAAACTGGATGGAAAATT
 TTATGCTGTCAAAGTGTACAGAAAAAATAGTTCTCAACAGAAAAGAGCAAAAACATATTATGGCTGAA
 CGCAATGTGCTCTTGAAAATGTGAAGCACCCATTTTGGTTGGATTGCACTATTCTTTCCAAACAACCTG
 AAAAGCTTTATTTGTTCTGGATTTTGTAAATGGAGGGGAGCTCTTCTTTCACCTCCAAAGGAAAAGGTC
 TTTTCTGAACCCAGAGCGAGGTTTTATGCCGCGGAGATCGCCAGTGCCTTGGGCTACCTGCACTCCATC
 AAAATAGTGTACAGAGACTTGAAGCCAGAAAATATTCTTTTGGATTCAATGGGACATGTTGTCTTAACGG
 ATTTTGGACTTTGCAAAGAAGGAATCGCTATTTCTGATACCACCACAACCTTTTGTGGTACACCAGAGTA
 CCTTGCACCTGAAGTAATCAGAAAACAGCCCTATGACAACACTGTGGACTGGTGGTGCCTGGGCGCTGT
 CTGTATGAGATGCTGTACGGCTGCCTCTTTTACTGCCGAGATGTTGCTGAAATGTATGACAATATTC
 TTCACAAGCCCTTAAACTTGAGACCAGGAGTGAGTCTCACGCCCTGGTCCATTCTGGAAGAACTCTAGA
 AAAAAACAGACAAAATCGACTTGGTGCCAAAGAAGACTTTCTTGAAATCCAGAATCATCCTTTTTTTGAG
 TCACTCAGCTGGACTGACCTCGTACAAAAAAGATTCCACCTCCATTTAACCTAATGTGGCTGGACCAG
 ATGATATCAGAACTTTGATGCCGTCTTCACTGAAGAAACGGTCCCTATTCAAGTGTGTGTCTTCTGA
 CTATTCATCGTGAATGCCAGTGTCTGGAGGCAGATGATGCATTTGTTGGTTTTTCTTACGCCCTCT
 TCGGAAGACTTATTTTTG

**ACCGGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA**

Protein Sequence:

>MR217036 representing NM_001037759
 Red=Cloning site Green=Tags(s)

MQRDCIMDYKESCPVSIPSSDEHREKKRFTVYKVLVSVGRSEWFVFRRYAEFDKLYNSLKKQFPAMAL
 KIPAKRIFGDNFDPDFIKQRRAGLNEFIQNLVRYPELYNHPDVRAFLQMDSPRHQSDPSEDEDERSTSKP
 HSTSRNINL GPTGNPHAKPTDFDLKVIKGSFGKVLAKRKL DGKFYAVKVLQKKIVLNRKEQKHIMAE
 RNVLLKNVKHPFLVGLHYSFQTTEKLYFVLDVNGGELFFHLQRERSFPEPRARFYAAEIASALGYLHSI
 KIVYRDLKPENILLDSMGHVVL TDFGLCKEGIAISDTTTTFCGTPEYL APEVIRKQPYDNTVDWWCLGAV
 LYEMLYGLPPFYCRDVAEMYDNILHKPLNLRPGVSLTAWSI LEELEKNRQNLGAKEDFLEIQNHFFFE
 SLSWTDLVQKKIPPPFNPVAGPDDIRNFDAVFT EETVPYSVCVSSDYSIYNASVLEADDAFVGF SYAPP
 SEDLFL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

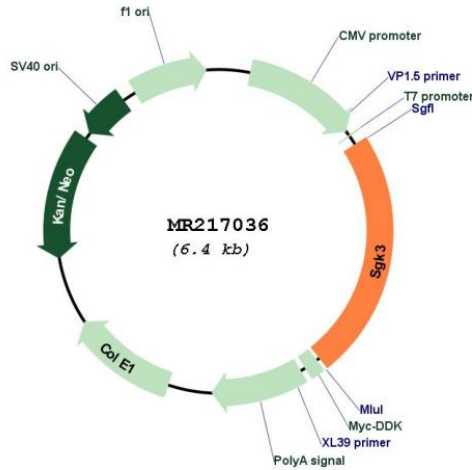
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001037759

ORF Size: 1488 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_001037759.1](#), [NP_001032848.1](#)

RefSeq Size: 5398 bp

RefSeq ORF: 1491 bp

Locus ID: 170755

UniProt ID: [Q9ERE3](#)

Cytogenetics: 1 2.08 cM

MW: 57.6 kDa

Gene Summary: Serine/threonine-protein kinase which is involved in the regulation of a wide variety of ion channels, membrane transporters, cell growth, proliferation, survival and migration. Up-regulates Na(+) channels: SCNN1A/ENAC and SCN5A, K(+) channels: KCNA3/KV1.3, KCNE1, KCNQ1 and KCNH2/HERG, epithelial Ca(2+) channels: TRPV5 and TRPV6, chloride channel: BSND, creatine transporter: SLC6A8, Na(+)/dicarboxylate cotransporter: SLC13A2/NADC1, Na(+)-dependent phosphate cotransporter: SLC34A2/NAPI-2B, amino acid transporters: SLC1A5/ASCT2 and SLC6A19, glutamate transporters: SLC1A3/EAAT1, SLC1A6/EAAT4 and SLC1A7/EAAT5, glutamate receptors: GRIA1/GLUR1 and GRIK2/GLUR6, Na(+)/H(+) exchanger: SLC9A3/NHE3, and the Na(+)/K(+) ATPase. Plays a role in the regulation of renal tubular phosphate transport and bone density. Phosphorylates NEDD4L and GSK3B. Positively regulates ER transcription activity through phosphorylation of FLII. Negatively regulates the function of ITCH/AIP4 via its phosphorylation and thereby prevents CXCR4 from being efficiently sorted to lysosomes.[UniProtKB/Swiss-Prot Function]