

Product datasheet for **MG217036**

Sgk3 (NM_001037759) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sgk3 (NM_001037759) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sgk3
Synonyms:	2510015P22Rik; A330005P07Rik; Cisk; fy; fz
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG217036 representing NM_001037759
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAGAGGGATTGTATCATGGACTACAAGGAGAGCTGCCAAGTGAAGCATTCCAGCTCTGACGAAC
 ACAGAGAGAAAAAGAAGAGGTTACGGTTTATAAAGTTCTGGTCTCTGTGGGCAGAAAGCGAGTGGTTGT
 CTTCAGGAGATACGCAGAGTTTGACAACTTTACAATTCTTTAAAGAAGCAGTTTCTGCTATGGCTCTG
 AAGATTCTGCCAAGAGAATATTTGGTGATAATTTTATCCAGATTTTATAAACAAAGAAGAGCAGGAT
 TGAATGAGTTCATTACAGAACTTGGTCAGATATCCAGAGCTTTACAACCATCCAGATGTCCGAGCATTCT
 TCAATGGACAGCCCAAGACATCAGTCAGATCCATCTGAAGATGAGGATGAAAGAAGTACTTCGAAGCCA
 CATTCTACCTCACGGAACATCAACCTGGGACCACTGAAATCCTCATGCTAAACCAACTGACTTCGATT
 TTTTAAAAGTTATTGAAAGGGCAGCTTTGGCAAGTTCTTCTTGCAAAACGAAACTGGATGGAAAATT
 TTATGCTGTCAAAGTGTACAGAAAAAATAGTTCTCAACAGAAAAGAGCAAAAACATATTATGGCTGAA
 CGCAATGTGCTCTTGAAAATGTGAAGCACCCATTTTGGTTGGATTGCACTATTCTTTCCAAACAACCTG
 AAAAGCTTTATTTGTTCTGGATTTTGTAAATGGAGGGGAGCTCTTCTTCCACCTCCAAAGGAAAAGGTC
 TTTTCTGAAACCCAGAGCGAGGTTTTATGCCGCGGAGATCGCCAGTGCCTTGGGCTACCTGCACTCCATC
 AAAATAGTGTACAGAGACTTGAAGCCAGAAAATATTCTTTGGATTCAATGGGACATGTTGTCTTAACGG
 ATTTTGGACTTTGCAAAGAAGGAATCGCTATTTCTGATACCACCACAACCTTTTGTGGTACACCAGAGTA
 CCTTGCACCTGAAGTAATCAGAAAACAGCCCTATGACAACACTGTGGACTGGTGGTGCCTGGGCGCTGTT
 CTGTATGAGATGCTGTACGGGCTGCCTCCTTTTACTGCCGAGATGTTGCTGAAATGTATGACAATATTC
 TTCACAAGCCCTTAAACTTGAGACCAGGAGTGAGTCTCACGCCCTGGTCCATTCTGGAAGAACCTTCTGA
 AAAAAACAGACAAAATCGACTTGGTGCCAAAGAAGACTTCTTGAAATCCAGAATCATCCTTTTTTTGAG
 TCACTCAGCTGGACTGACCTCGTACAAAAAAGATTCCACCTCCATTTAACCCCTAATGTGGCTGGACCAG
 ATGATATCAGAACTTTGATGCCGTCTTCACTGAAGAAACGGTCCCTATTCAAGTGTGTGTCTTCTGA
 CTATTCATCGTGAATGCCAGTGTCTGGAGGCAGATGATGCATTTGTTGGTTTTTCTTACGCCCTCCT
 TCGGAAGACTTATTTTTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG217036 representing NM_001037759
 Red=Cloning site Green=Tags(s)

MQRDCIMDYKESCPVSIPSSDEHREKKRFTVYKVLVSVGRSEWVFRRYAEFDKLYNSLKKQFPAMAL
 KIPAKRIFGDNFDPDFIKQRRAGLNEFIQNLVRYPELYNHPDVRAFLQMDSPRHQSDPSEDEDERSTSKP
 HSTSRNINLGPNGPHAKPTDFDLKVIKGSFGKVLAKRKLKGKLYAVKVLQKKIVLNRKEQKHIMAE
 RNVLLKNVKHPFLVGLHYSFQTTEKLYFVLDVNGGELFFHLQRERSFPEPRARFYAAEIASALGYLHSI
 KIVYRDLKPENILLDSMGHVLTDFGLCKEGIAISDTTTFCTGPEYLAPEVIRKQPYDNTVDWVCLGAV
 LYEMLYGLPPFYCRDVAEMYDNILHKPLNLRPGVSLTAWSILEELEKNRQNLGAKEDFLEIQNHPPFE
 SLSWTDLVQKKIPPPFNPVAGPDDIRNFDAVFTEETVPYSVCVSSDYSIVNASVLEADDAFVGFYSYAPP
 SEDLFL

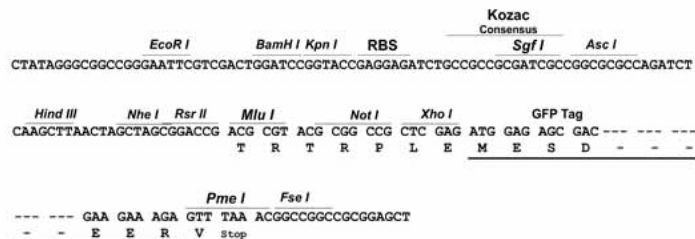
TRTRPLE - GFP Tag - V

Restriction Sites:

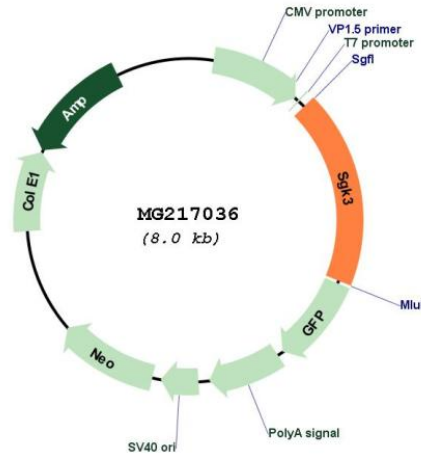
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



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

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]