

Product datasheet for **MG208287**

Sgo1 (NM_028232) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sgo1 (NM_028232) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sgo1
Synonyms:	3300001M08Rik; C81037; Sgo1; Sgol1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208287 representing NM_028232
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTAAGGAAAGGTGTGAGAAAAGTCTTTCAAGATACCCTTGAAGACATTAAGAATCGAATGAAAG
 AAAAAAGGAATAAAAATTTGGCGGGGATTGGGAAACGCAAGTCCTTTATTGTTGCACCGGCCAAGTACC
 CACTAACACTGCTACACTACTGAGATATTACCAAGATAACAACAGTTGTTAGTCTTGGCTTTGAAAAAT
 GAGAAATCCAAAGTGAGAGAAGCACAGGATGTCATCCTGCAACTGAGAAAAGAATGCTACTACCTTACTT
 GTCAGCTGTATGCATTGAAAGAGAAGCTAACTCCCGACAAAGTGAAGAACTACTCAGAAGTGGAAAGG
 ACGTCCCTCAGACGTGGTCTCCAGCATTGACAATACGACCAGGGACTTGCAGGGAAGTCTTACAGCAA
 ATTGCTGTTGAAGAACTGATTGCCTTACCAACCACAGAACCAAGTCTGCTGTTACTCCAGAGACAC
 AGGTTTGGGATTTGATTGAGTAAAGTTGAGTCTACTGATGAAGTCTTACCCAGAATAATCTATCCG
 TCGCCATTTAAGGAAAGATTTTAGTAATAAAGCCACTCCAGACTTTGGAGATTGTAAGCCAGTCCA
 AGAGTGGCACAGTCTCTGGAAGTTAAAGGAAGTAGATGTAGAGAAGTAACCGTAACCTGCACAGACTTG
 AAAATGTTTGTCTGTGGAACAAAGACCAAAATTAGCTTATGTTCTAGACTGATTAACCCAGCAAAGATTAC
 TGAAACAGAAGTCATTTTATCATCTAAACCTGAACAAATAGAAAGCAAGCATAAACCTGCACGAAAAAGA
 AGAGCAGAGCAAAGAAGAACCAAGCAGAGATGCAAAATCAAAATCCTCATTGAGGAGTAAGGGGAACAAA
 ACAAAGATAAGCAGGGTTTACCCCTACTACACTGGATGGAGGTATTGGTTCTGTGATGCTTACGATTT
 TAATCTAAAAGGGACGGTCCACCCACCCCTTTCCGACAAAAATGAACAATGGCTGCAACAAAGAAACG
 GATAGCAGCAACTCAGAAGTGAGTGACCTCGAATGCAGTACCTCTGAGGATGAGTCTGATGACCTTACC
 TGCTCCCTCAAGCGCTTGGGAGACTACAGAGAGTACAGAGAGCAGTACCAGGCCTCGGTCTAAAAG
 AGGACTTCAGTACCCAGATGGGAAAGAGAGGAAGGAGGTGCTGCCATCTACAGCTCCTACTGGTATCCCA
 CCTGAGACTCAAGAGTCACCTCGTTGTAGCCTAAAGGATGTCACCAATATCCTGCAGTGTCTAGAGTGA
 AGATCAGGAAGCCTTCTCTGCCTCAAAGCGCGGTGAAGACAGCCAGCAGTGGCTCTGACTAAACGCAG
 GTGTAGCACCATCAAAGCTATAAAGAGCCAACACTCGCTTCAAAGCTAAGAAGAGGGGACCCTTTCAGC
 GACTTGTGTTTCTGAATTCTCTATTTTCAAGCAGAAAAGGGGTATGAGATGTCCTAAAAGAAGAACCA
 AGCAAACACAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG208287 representing NM_028232
 Red=Cloning site Green=Tags(s)

MAKERCQKRSFQDTLEDIKNRMKEKRNKNLAGIGKRKSFIVAPGQVPTNTATLLRYYQDNNRLLVLALEN
 EKSKVREAQDVILQLRKECYLTCQLYALKEKLSRQSEETTQNWKGRPSDVVSSIDNTTRDLSGKSLQQ
 IAVEETDCPYQTTEPSPAVTPETQGCDFDSGKVESTDEVLPRTISIRRHLRKDFSNISHSTTLEDCKASP
 RVAQSLEVKSRCREVTVTLHRLNENCLWNKDQISLCSRLINPAKITETEVILSSKPEQIESKHKRARKR
 RAEQRRTKQRCKSKSSLRSKGNKNKDKQGLPPTLDGGIGSCDAYDFNLKGTVHPTPFRQKMNGCNKET
 DSSNSEVSDLECSTSEDESDDL YLPPSKRLRDYRESERAVTRPRSKRGLQYPDGKERKEVLPSTAPTGP
 PETQESPRCSLKDVNIIQCPRVKIRKPSLPPKRREDSPAVALTKRRCSTIKSYKEPTLASKLRRGDPFT
 DL CFLNSPIFKQKRGMRCPKRRTKQTQ

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_028232

ORF Size: 1551 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_028232.2](#), [NP_082508.1](#)

RefSeq Size: 3609 bp

RefSeq ORF: 1554 bp

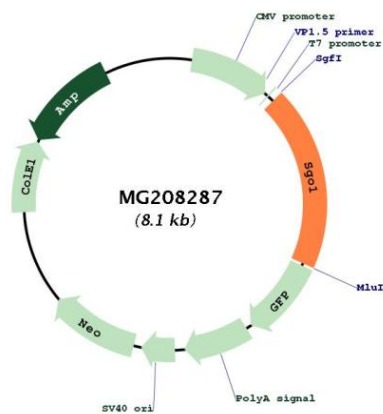
Locus ID: 72415

UniProt ID: [Q9CXH7](#)

Cytogenetics: 17 C

Gene Summary:

Plays a central role in chromosome cohesion during mitosis by preventing premature dissociation of cohesin complex from centromeres after prophase, when most of cohesin complex dissociates from chromosomes arms. May act by preventing phosphorylation of the STAG2 subunit of cohesin complex at the centromere, ensuring cohesin persistence at centromere until cohesin cleavage by ESPL1/separase at anaphase. Essential for proper chromosome segregation during mitosis and this function requires interaction with PPP2R1A. Its phosphorylated form is necessary for chromosome congression and for the proper attachment of spindle microtubule to the kinetochore. Necessary for kinetochore localization of PLK1 and CENPF. May play a role in the tension sensing mechanism of the spindle-assembly checkpoint by regulating PLK1 kinetochore affinity. Involved in centromeric enrichment of AUKRB in prometaphase.[UniProtKB/Swiss-Prot Function]

Product images:

Circular map for MG208287