

## Product datasheet for **MC223168**

### **Sgsm2 (NM\_197943) Mouse Untagged Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Sgsm2 (NM\_197943) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Sgsm2  
**Synonyms:** D630003G22Rik; mKIAA0397; R74628; Rutbc1  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC223168 representing NM\_197943  
**Red**=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGGGCAGCGCAGAGGACGCGGTCAAAGAAAAGCTGCTGTGGAACGTGAAGAAGGAGGTGAAACAAATCA  
TGGAGGAGGCTGTACCAGGAAATTCGTGCATGAAGATAGCAGCCACATCATTGCTCTGTGTGGTGTCTGT  
GGAGGCTTGCCTCCTGCATCAGCTAAGACGCCGTGCTGTGGCTTCTGCGAAGTGACAAGATGGCGGCC  
CTGTTCACCAAAGTGGGGAAGACATGCCCGTGGCTGAAGATATCTGCCACAAGGTGCAGGAGTTGCAGC  
AACAGGCAGAGGGCAGGAAACCCCTCGGGAGGCAGCCAAGAAGCCCTTCGAAACAGGGCTCTACCGTGG  
GAAGGCCCCAGCTCTCAGCCACAGGCCTTGAAACACATATGGGTACGCACAGCACTCATGGAGAAAGTT  
CTGGACAGGGTTGTACAGTACCTGGCCGAAACTGCAGCAAGTATTACGAGAAGGAAGCATTATTGGCAG  
ATCCTGTGTTGGCCCAATCCTGGCATGTCTCCTAGTGGGACCCGTGCCTTGAATACACGAAGCTCAA  
GACAGCTGATCACTACTGGACTGACCCCTCTGCTGATGAGCTGGTTCAGAGGCACCGTATCCGGGGTCCC  
CCTAACCGTCAGGACTCCCCGGCAAAGCGCCCTGCCCTGGGATCCGGAAGCGCCACTCTAGTGGGAGTG  
CCTCAGAAGACCGGCTTGCCGCTGCGCCGTGAGTACGTGGAGTCTCTGCACCAGAATCAAGAACACG  
CCTGCTCTATGGCAAGAACAACGTGTTGGTGCAGCCGAAGGAGGACATGGAGGCAGTCCCTGGCTACCTC  
TCCTGCACCAAGTCTGCAGAGAACCTAACCTGAAGTGGACTCCCAACCAACTCATGAACGGGACTCTCG  
GGGACTCTGAGCTAGAGAAGAGTGTACTGGGACTATGCCTTGGTGGTGCCTTCAGTCAGATCGTCTG  
CATCCACTGCCACCAGCAAAAGAGCGGTGGCAGCCTTGTGCTGGTGGAGCCAGGATGGCATCCAGAGGCCG  
CCACTACACTTCCACAGGGAGGACACCTGCTGTCTTCTGTCATGTCTGGAGAATGGGCTGTGCCTC  
GTGGACAGCTTGAGCCCCGCTGTGGACCCAGCAGGAAAGGGCAAGGTTTTCCCAAGCTACGGAAACG  
CAGCAGCATTCCGTCCATTGATGTAGAGGAGCTGGGTGTCGGACGGCAACGGACTACGTGTTCCGGATC  
ATCTACCCCGGACATAGGCACGAGCATAATGCTGGCGACATGATTGAGATGCAGGGTTTTCCGACCCAGCC  
TAACAGCCTGGCACCTAGAGCCCTGTGTAGCCAGGGCTCCTCCTGCCTTTCCTGTTCTCCAGTAGCTC  
CCCATATGCAACCCCAAGTCACTGCAGTGCATTCTGACAGGTTGCCCTCCGGCTGCTGTGTGAGAGC  
ATGAAGAGGCAGATTGTGTCCCGGCCCTTACGGCTGGCTAGCCTACTGTCCGCACCTGTCCACAGTGA



GGACACCTGTCTGCATTGGTGCATCACAACATCATTCCACCAGACAGGCCCGGGGCTCAGGTGG  
 CCTCACCAAGGATGTGTGGAGCAAGTATCAGAAGGACGAAAAGAACTACAAGGAGCTGGAGCTGCTGCGG  
 CAGGTGTACTATGGAGGCGTGGAAACACGAGATTCGCAAGGACGCTGGCCCTTCTACTTGGCCACTACA  
 AGTTTGGCATGAGCAAGAAGGAGATGGAGCAGGTGGATACAGCAGTGGCAGCAAGTACCAGCAGGTGTT  
 GGCAGAGTGGAAAGCCTGCGAGGTGGTGGTGAGGCAGCGGGAGCGGGAGGCTCACCCAGCCACGCTCACC  
 AAGTTCTCCTCGGGCAGCAGCATCGATAGCCACGTGCAGCGCCTCGTGCACCGGGATTCCACCATCAGCA  
 ATGATGTATTTATCTCTGTGGATGATCTTGAGCCCTCTGGACCTCAGGACCTGGAAGATTCCAAACCAAA  
 GCGGGAACAGGAGCCAGGAGCTGGGACCCCGGGCATAGCAGCTGCAGAGCAGCAGTCTGTGGAGTTTGAC  
 TCTCCAGACTCAGGGCTGCCTTCTCCCGCAACTACTCTGTGGCCTCAGGCATCCAGTCCAGCCTAGATG  
 AGGCACAGAGTGTGGCTTTGAAGACGACGGTGTGGAGAAGATGGCTCCGAGGGTCCAGCCACTGCAGC  
 CCACACTTTCCCGGACCCACGATCCAGGCCAGGAGACGCTTGCACCTGCCAGTGGAGCTGAAGCAGGC  
 CAGGAGCTCGCAGCTGTGTGCGCCGAGCCTATACTATAGAATTACTGGACCCGTGGCCTAAATCTGC  
 ACCGCATAGACAAGGATGTGCAGAGATGTACCAGCACTACTGGTACTTACGACCTCCAACCTCGAGAG  
 GCTCAGAGACATCATGTGCAGCTACGTGTGGGAGCACCTGGATATGGGCTACGTGCAGGGCATGTGTGAT  
 CTCTGGCACCTCTCTGGTTCATCTTGACAATGACCAGCTGGCCTACAGCTGCTTACGCCACCTCATGA  
 AGAGGATGGGCCAGAACTTCCCCAGTGGGGTGGCATGGACAGCCACTTGGCAACATGCCTCCCTCAT  
 CCAGATCTTGGACTCAGAGCTATTTGAGCTGATGCATCAAAATGGAGACTATACCCACTTCTATTCTGT  
 TATCGCTGGTTCCTGCTGGATTTAAAAGAGAGCTGCTGTATGAGGACGTGTTTGCAGTGTGGGAAGTGA  
 TCTGGGACGCCAGGCGCATCTCCTCAGAGCACTTGTCTGTTTCATCGCCCTGGCCCTGGTGGAGGCCTA  
 CAGAGAGATTATCCGTGACAACAACATGGACTTACCCGACATCATCAAAATTTTCAACGAGCGGGCTGAG  
 CGGCATGATGCCAGGAGATCCTGCGGATTGCCCGGACTTGGTCCACAAGGTGCAGATGCTCATAGACA  
 ACAAGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_197943
- Insert Size:** 3018 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:**
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\\_197943.2](#), [NP\\_922934.2](#)
- RefSeq Size:** 4791 bp
- RefSeq ORF:** 3018 bp

Locus ID:	97761
UniProt ID:	<a href="#">Q80U12</a>
Cytogenetics:	11 B5
Gene Summary:	Possesses GTPase activator activity towards RAB32, RAB33B and RAB38. Regulates the trafficking of melanogenic enzymes TYR, TYRP1 and DCT/TYRP2 to melanosomes in melanocytes by inactivating RAB32 and RAB38. Inhibits RAB32 and RAB38 activation both directly by promoting their GTPase activity and indirectly by disrupting the RAB9A-HPS4 interaction which is required for RAB32/38 activation (PubMed:26620560).[UniProtKB/Swiss-Prot Function]