

## Product datasheet for **MG207131**

### **Sctr (BC089355) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Sctr (BC089355) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sctr
Synonyms:	6530402O03Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG207131 representing BC089355  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGCTCAGCACCATGAGCCCCGGCTGTACTGCTTCTGTGTGGCTGCTGCTCATCAATGCAGCGC  
 ACCCTGTTGGAGCTCTGCCAGATTGTGTGATGTGCGGCGTGTGCTGCTCGAGGAACGGGCCGAGTGCCT  
 GCGGGAATCTCCGAAGAGAAGAAGCGCTGGGCCGAAGACAGCATCAGGCTGTGAGAGTTTTGGGAC  
 AACATGAGCTGTGGCCCTCCTCGGCACTGGCACAGACAGTGAAGTGCCATGTCCGAAGTTCCTGAGGA  
 TGTTCTCTGGCAGAAATGGGTCTCTGTTCCGAACTGCACAAAGGATGGCTGGTCAGAAACCTTCCCAG  
 GCCTGACCTGGCCTGTGGGTCAACATGAATGGCTCCTTAATGAGAGACGGCATGCATACCTGTGAAG  
 CTCAAGGTCATGTACACTGTAGGCTACAGTTCCTCCTTGCCATGCTCCTGGTCGCCCTCAGCATCTGT  
 GCTCTTCCGGAGGCTGCACTGCACTCGCAACTACATCCACATGCACCTGTTTGTGCTTTCATCCTTCG  
 CGCCCTGTCCAATTCATCAAGGACGCCGACTCTTCCCGCAGATGACGTCACCTACTGTGATGCCAC  
 AGGGCAGGCTGCAAGCTGGTCATGATCTTCTTCCAGTACTGCATCATGGCCAACACGCGTGGCTGCTGG  
 TGGAGGGCCTCTATCTTACACGCTCCTGGCCATCTCCTTCTTCTCAGAAAGGAAGTGCCTGCAGGCATT  
 TGTGCTCTTCCGATGGGTTCTCCAGCCATTTTGTGCTTTGTGGGCTGTACCAGACACTTTCTGGAG  
 GACTTTGGATGCTGGGACATCAACTCCAACGCTCCATCTGGTGGGTCATTCCGAGGGCCTGTGATTCTGT  
 CCATCGTGATCAATTTTCATTTTTTATAAACATTCTAAGAATCCTGATGAGAAAACCTAGAACTCAAGA  
 AACAGAGGAAATGAAACACACCATTATAAGCGCTGGCCAAGTCCACCTCCTGCTGATCCCTCTCTTT  
 GGCATCCACTACATTGTCTTCCGCTTCTCCAGAGGGTGCCATGGAGGTCCAGCTGTTCTTTGAATTGG  
 CCTGGGCTCCTTCCAGGGCTGGTGGTAGCTGTCTTTACTGCTTCTCAATGGTGAGCTGGAAGTTCA  
 GAAAAAATGGCGCCAGTGGCACCTCCAAGAGTTCGCGCTGCGCCCTGTGGCCCTCAGCAACTCCTTCAGC  
 AACGCCACCAACGCCCCACCCACAGCACCAAGGCTGGCACCTCTGAGCAGAGCCGGAGCATCCCCGGG  
 CCAATGTCATC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG207131 representing BC089355  
 Red=Cloning site Green=Tags(s)

MLSTMSPRLSLLLLWLLLLINAAHPV GALPRLCDVRRV LLEERA ECLRELSEEK KALGPKTASGCERFWD  
 NMSCWPSSALAQTV E VCPKFLRMFSGRNGSLFRNCTKDGWSETFPRPDLACGVNMNGSFNERRHAYLLK  
 LKVMYTVGYSSSLAMLLVALSILCSFRRLHCTRNYIHMHLFVSFILRALSNFIKDAVLPADDVYCDAH  
 RAGCKLVMIFFQY CIMANYAWLLVEGLYLHTLLAISFFSERKCLQAFVLFGWGSPAIFVALWAVTRHFLE  
 DFGCWDINSNASIWWVIRGPVILSIVINFIFFINILRILMRKLRTQETRGNETHHYKRLAKSTLLL IPLF  
 GIHYIVFAFSPEGAMEVQLFFELALGSFQGLVVAVLYCFLNGELEVQKKWRQWHLQEFPLRPVALSNSFS  
 NATNGPTHSTKAGTSEQSRSIPGANVI

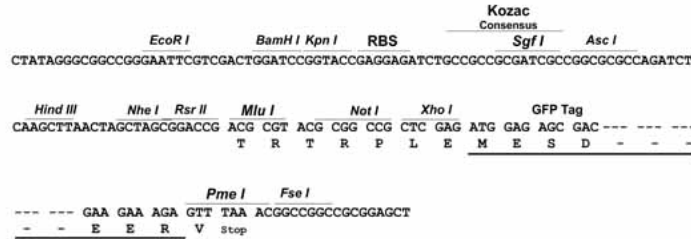
SGPTRRRLE - GFP Tag - V

**Restriction Sites:**

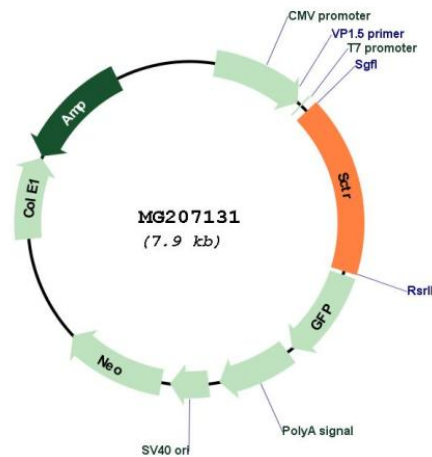
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: BC089355

ORF Size: 1343 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">BC089355</a></u> , <u><a href="#">AAH89355</a></u>
<b>RefSeq Size:</b>	1834 bp
<b>RefSeq ORF:</b>	1343 bp
<b>Locus ID:</b>	319229
<b>Cytogenetics:</b>	1 E2.3
<b>Gene Summary:</b>	Receptor for secretin (SCT), which is involved in different processes such as regulation of the pH of the duodenal content, food intake and water homeostasis (PubMed:20927047, PubMed:24273196, PubMed:30449620). The activity of this receptor is mediated by G proteins which activate adenylyl cyclase (PubMed:30449620). Upon binding to secretin, regulates the pH of the duodenum by (1) inhibiting the secretion of gastric acid from the parietal cells of the stomach and (2) stimulating the production of bicarbonate (NaHCO <sub>3</sub> ) from the ductal cells of the pancreas (By similarity). In addition to regulating the pH of the duodenal content, plays a central role in diet induced thermogenesis: acts as a non-sympathetic brown fat (BAT) activator mediating prandial thermogenesis, which consequentially induces satiation (PubMed:30449620). Mechanistically, secretin released by the gut after a meal binds to secretin receptor (SCTR) in brown adipocytes, activating brown fat thermogenesis by stimulating lipolysis, which is sensed in the brain and promotes satiation (PubMed:30449620). Also able to stimulate lipolysis in white adipocytes (PubMed:24273196). Also plays an important role in cellular osmoregulation by regulating renal water reabsorption (PubMed:17283064). Also plays a role in the central nervous system: required for synaptic plasticity (PubMed:17008357).[UniProtKB/Swiss-Prot Function]