

## Product datasheet for **MR225138**

### **Sctr (NM\_001012322) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Sctr (NM_001012322) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sctr
Synonyms:	6530402O03Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>MR225138 representing NM\_001012322  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCTCAGCACCATGAGCCCCGGCTGTACTGCTTCTGCTGTGGCTGCTGCTCATCAATGCAGCGC  
 ACCCTGTTGGAGCTCTGCCAGATTGTGTGATGTGCGGCGTGTGCTGCTCGAGGAACGGGCCGAGTGCCT  
 GCGGGAACCTCCGAAGAGAAGAAGGCGCTGGGCCGAAGACAGCATCAGCCATCGTATTCTCACCGTCT  
 GCTCCTTCGTACACGGTTCATCAAGGCTGTGAGAGTTTTGGGACAACATGAGCTGTGGCCCTCTCGG  
 CACTGGCAGACAGTGGAAAGTCCATGTCCGAAGTTCCTGAGGATGTTCTTGGCAGAAATGGGTCTCT  
 GTTCCGGAACGCACAAAGGATGGCTGGTCAGAAACCTCCCCAGGCCTGACCTGGCCTGTGGGGTCAAC  
 ATGAATGGCTCCTTAATGAGAGACGGCATGCATACCTGCTGAAGCTCAAGGTCATGTACACTGTAGGCT  
 ACAGTTCTCTCTGGCCATGCTCCTGGTCGCCCTCAGCATCCTGTGCTCTTCCGGAGGCTGCCTGCAC  
 TCGCAACTACATCCATGCACCTGTTTGTGTCCTTCATCCTTCGCGCCCTGTCCAACCTCATCAAGGAC  
 GCCGACTCTTCCCCGCAGATGACGTCACTACTGTGATGCCACAGGGCAGGCTGCAAGCTGGTATGA  
 TCTTCTCCAGTACTGCATCATGGCAACTACGCGTGGCTGCTGGTGGAGGGCCTCTATCTTCACACGCT  
 CCTGGCCATCTCCTTCTCTCAGAAAGGAAGTGCCTGCAGGCATTTGTGCTCTTCGGATGGGGTTCTCCA  
 GCCATTTTGTGCTTTGTGGGCTGTACCAGACACTTTCTGGAGGACTTTGGATGCTGGGACATCAACT  
 CCAACGCTTCCATCTGGTGGGTCAATCGAGGGCCTGTGATTCTGTCCATCGTGATCAATTCATCTTTT  
 CATAAACATTCTAAGAATCCTGATGAGAAAACCTAGAACTCAAGAAACAAGAGGAAATGAAACACACCAT  
 TATAAGCGCCTGGCCAAGTCCACCCTCCTGCTGATCCCTCTCTTTGGCATCCACTACATTGTCTTCGCT  
 TCTCCCCAGAGGGTGCCATGGAGGTCCAGCTGTTCTTTGAATTGGCCCTGGGCTCCTCCAGGGCTGGT  
 GGTAGCTGCTCTTACTGCTTCTCAATGGTGGAGGTGCAGCTGGAAGTTCAGAAAAAATGGCGCCAGTGG  
 CACCTCCAAGAGTTCGCGCTGCGCCCTGTGGCCCTCAGCAACTCCTTCAGCAACGCCACCAACGGCCCA  
 CCCACAGACCAAGGCTGGCACCTCTGAGCAGAGCCGGAGCATCCCCGGGCCAATGTCATC

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTAA

**Protein Sequence:**

>MR225138 representing NM\_001012322  
 Red=Cloning site Green=Tags(s)

MLSTMSPRLSLLLLWLLLLINAAHPV GALPRLCDVRRV LLEERA ECLRELSEEK KALGPKTASAI VFS  
 APSYTVHQGCERFWDNMSCWPSSALAQTV EPCPKFLRMFSGRNGSLFRNCTKDGWSETFPRPDLACGVN  
 MNGSFNERRHAYLLKLVMYTVGYSSSLAMLLVALSILCSFRRLHCTRNYIHMHLFVSFILRALSNFIKD  
 AVLFPADDVTYCDAHRAGCKLVMIFFQY CIMANYAWLLVEGLYLHTLLAISFFSERKCLQAFVLFWGWSP  
 AIFVALWAVTRHFLEDFGCWDINSNASIWWVIRGPVILSIVINFIFFINILRILMRKLRTQETRGNETHH  
 YKRLAKSTLLL IPLFGIHYIVFAFSPEGAMEVQLFFELALGSFQGLVVAVLYCFLNGEVQLEVQKKWRQW  
 HLQEFPLRPVALSNSFSNATNGPTHSTKAGTSEQSRSIPGANVI

**SGP**TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja1953\\_e02.zip](https://cdn.origene.com/chromatograms/ja1953_e02.zip)

**Restriction Sites:**

Sgfl-RsrII

Cloning Scheme:



ACCN: NM\_001012322

ORF Size: 1392 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

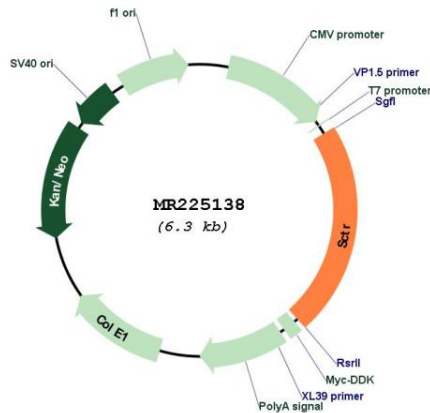
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_001012322.2](#), [NP\\_001012322.2](#)  
**RefSeq Size:** 1939 bp  
**RefSeq ORF:** 1395 bp  
**Locus ID:** 319229  
**UniProt ID:** [Q5FWI2](#)  
**Cytogenetics:** 1 E2.3  
**MW:** 53.2 kDa

**Gene Summary:** 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]

### Product images:



Circular map for MR225138