

Product datasheet for **MG207628**

Sec61a1 (NM_016906) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sec61a1 (NM_016906) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Sec61a1
Synonyms:	AA408394; AA410007; Sec61a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG207628 representing NM_016906
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGATCAAATTTCTGGAAGTCATCAAGCCATTCTGTGCATCTTGCCGAAATTCAGAAGCCAGAGA
 GAAAGATTCAGTTAAGGAGAAAGTTCTGTGGACAGCCATCACCCCTTTCATCTTCTTAGTATGCTGTCA
 GATCCCCCTGTTTGGCATTATGCTTTCAGACTCAGCTGACCCGTTCTACTGGATGCGAGTGATTCTGGCC
 TCTAACAGAGGTACCTTAATGGAGCTGGGCATCTCTCCTATTGTCACCTCCGGTCTTATCATGCAGCTCT
 TAGCTGGTGCCAAGATAATTGAAGTTGGGGACACCCCGAAAGACCGAGCTCTTCAATGGAGCCAGAA
 GTTGTGGGAATGATCATTACTATCGGTGAGTCCATTGTGTATGTGATGACGGGCATGTACGGGGACCT
 TCGGAGATGGGTGCTGGAATCTGCCTGCTGATCACCATTAGCTCTTTGTTGCTGGCTTAATTGCCTAC
 TTTTGGATGAAGTCTGCAAAAAGGGTACGGCTTGGGCTCTGGCATTCTCTCTTATTGCGACTAACAT
 CTGTGAGACCATTGTGTGGAAGGCATTAGCCCCACCCTGTCAACACTGGCCGAGGGATGGAATTCGAA
 GCGCCATCATAGCGCTATTCCACCTGCTGGCCACCCGCACAGACAAGGTCGAGCCCTTCGAGAGGCAT
 TCTACCGCCAGAACCTCCCAACCTCATGAACCTGATTGCCACCATCTTCGTCTTTGCCGTTGTCATCTA
 TTTCCAGGGCTTCCGAGTGGACCTTCCAATCAAGTCGGCGGTTACCGAGGCCAGTACAACCTATCCC
 ATCAAGCTCTTCTACACCTCCAACATCCCATCATCTTGACAGTCTGCTCTGGTGTCCAACCTGTATGTCA
 TCTCCAGATGCTGTGAGCAGCTTTCAGTGGCAACCTGCTGGTTAGCCTGCTGGGCACCTGGTCGGATAC
 ATCATCTGGGGGCCAGCCGAGCTTACCCGTTGGTGGCCTGTGTTACTACCTGTCTCTCCGGAATCG
 TTCGGCTCAGTGTGGAGACCCTGTCCATGCGGTGCTGATCATCGTGTTCATGCTGGGCTCCTGTGCAT
 TCTTCTCCAAAACATGGATCGAAGTCTCAGGTTCTTCTGCCAAAGATGTTGCAAAGCAGCTGAAGGACA
 GCAGATGGTGATGAGGGGCCACAGGGAGACCTCCATGGTGCATGAGCTCAACCGGTACATCCCCACAGCC
 CGAGCCTTTGGTGGGCTGTGCATTGGGGCCCTCTCTGCTCGGCTGACTTCTGGGTGCTATCGGGTCTG
 GAACTGGGATCCTGCTTGCGGTACCATCATCTACCAGTACTTTGAGATCTTCGTCGAAGGAACAGAGCGA
 GGTGGGCAGCATGGGAGCCCTTCTCTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG207628 representing NM_016906
 Red=Cloning site Green=Tags(s)

MAIKFLEVIKPFVCVILPEIQKPERKIQFKEKVLWTAITLFIPLVCCQIPLFGIMSSDSADPFYWMRVILA
 SNRGTLMELGISPIVTSGLIMQLLAGAKIIEVGDTPKDRALFNGAQKLFGMIITIGQSIVYVMTGMYGDP
 SEMGAGICLLITIQLFVAGLIVLLLDELLQKGYGLSGISLFIATNICETIVWKAFSPPTVNTGRGMEFE
 GAIIALFHLLATRTDKVRALREAFYRQNLPNLMNLIAITFVFAVVIYFQGFVVDLPIKSARYRGQYNTYP
 IKLFYTSNIPIILQSALVSNLYISQML SARFSGNLLVSL LGTWSDTSSGGPARAYPVGGLCYLSPPE
 FGSVLEDPVHAVVYIVFMLGSAFFSKTWIEVSGSSAKDVAKQLKEQQMVMRGRHRETSMVHELNRYIPTA
 AAFGGLCIGALSVLADFLGAI GSGTGILLAVTIIYQYFEIFVKEQSEVGS MGALLF

TRTRPLE - GFP Tag - V

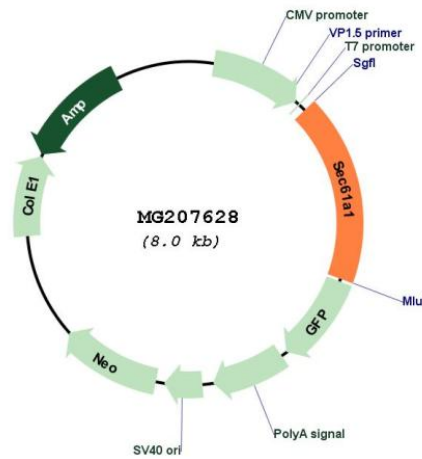
Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



ACCN: NM_016906

ORF Size: 1428 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_016906.4](#), [NP_058602.1](#)

RefSeq Size: 3040 bp

RefSeq ORF: 1431 bp

Locus ID: 53421

UniProt ID: [P61620](#)

Cytogenetics: 6 D1

Gene Summary: Component of SEC61 channel-forming translocon complex that mediates transport of signal peptide-containing precursor polypeptides across endoplasmic reticulum (ER). Forms a ribosome receptor and a gated pore in the ER membrane, both functions required for cotranslational translocation of nascent polypeptides. May cooperate with auxiliary protein SEC62, SEC63 and HSPA5/BiP to enable post-translational transport of small presecretory proteins. Controls the passive efflux of calcium ions from the ER lumen to the cytosol through SEC61 channel, contributing to the maintenance of cellular calcium homeostasis (By similarity). Plays a critical role in nephrogenesis, specifically at pronephros stage (PubMed:27392076).[UniProtKB/Swiss-Prot Function]