

## Product datasheet for **MG218435**

### **Stra6 (NM\_001162479) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Stra6 (NM_001162479) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Stra6
Synonyms:	AI891933
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG218435 representing NM\_001162479  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGTCCCAGGCATCTGAGAATGGAAGCCAGACCTCCTCCGGGTGACAGATGACTACAGCAGCTGGT  
 ACATCGAGGAACCTCTAGGAGCTGAGGAGGTGCAGCCAGAGGGGTGATTCCCCTTTGCCAGCTACCCGC  
 ACCCCCTGCCCTGCTCCATGCCTGCCTGGCTTCACTGTCGTTCTCTGGTTCTGCTGCTGCTGGCCTTCTG  
 GTGAGACGGCGCAGGCTTTGGCCACGCTGTGGTATCGCGGACTTGGACTGCCAGCCCTGTGGATTCTT  
 TGGCTGGGACCTATCCTGGACAGTGCCTGCTGCTGTCTTTGGTCTCTTTCAGCAACCTATGCCTGTT  
 GCTCCCTGATGAGAACCCTGCCTTCTGAACCTCACTGCAGCATCAAGTCCAGATGGAGAGATGGAG  
 ACATCAAGAGGGCCCTGGAAGCTACTGGCTGCTGCTACTATCCAGCCCTCTATTACCCTCTGGCTGCTT  
 GTGCTTCGGCAGGCACCAAGCTGCATTCTATTGGGACTGTGTATCTTGGGCCACTTTGGTGTCA  
 GGTCTGGCAGAAAGCTGAGTGTCTCAGGATCCTAAGATCTACAAGCACTACTCCTTGTGTCGCTCCCTG  
 CCTCTACTTCTGGGTCTTGGATTCTGAGCCTTTGGTATCCAGTACAACCTGTGCAGAGTCTCCGTCAAC  
 CGACAGGAGCAGGCTCCAGGGGCTGCAGACCAGCTACTCCGAGAAGTATCTGAGAACTTCTCTGCCCC  
 AAAGAAGTTGGATAGCTGCTCCCATCCTGCCTCCAAGCGTAGCCTCCTGTCTCGGGCCTGGGCCTTCTCC  
 CATCATTCCATCTACACTCCACAGCCAGGATCCGCCTGCCCTTGAAGCTGGTGTCTCGGCCACCCCTGA  
 CAGGAACAGCCACTTACCAGGTGGCCCTGCTGCTGCTGGTGGAGCGTGGTGCCTACTGTGCAGAAGGTGAG  
 GGGGGGATCAACACAGATGTCTCCTACCTGCTGGCTGGCTTTGGGATCGTGCTCTCTGAAGACAGGCAG  
 GAGGTGGTAGAGCTGGTGAAGCATCACCTATGGACTGTGGAAGCATGCTACATCTCAGCTCTGGTCTTGT  
 CCTGCGCATCAACCTTCTGCTCCTGATCCGATCCCTGAGGACACACAGGGCCAATCTTCAAGCACTACA  
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 GCCAAGTGGATCTTCTGAGGACTCACCATGGATACCCAGAGCTGACCAACCGGCGCATGCTCTGCGTAG  
 CTACTTTCTCCTTCCCCATCAACATGCTGGTGGGAGCCATAATGGCTGTCTGGCGGGTGTCTCATCTC  
 TTCTCTACAACACTGTTACCTCGGCCAGATGGACCTCAGCCTGCTGCCGAGAGGGCAGCCTCCCTG  
 GATCCAGGCTACCACACATACCAAACTTCTGAGGATTGAGGCCAGCCAGTCACATCCAGGAGTCATAG  
 CCTTCTGTGCCCTGCTCCTCCATGCTCCAAGTCCACAGCCCCGGCCCCATTGGCCCCCTCAGGACAGCCT  
 CAGGCCGCGAGAAGAAGAAGAAGGGATGCAGTTGCTACAGACCAAGGACCTGATGGCCAAGGGAGCAGGA  
 CACAAAGGCAGCCAGAGCAGGGCCCGCTGGGGTCTGGCCTACACATTGCTCCACAATCCAAGCCTACAGG  
 CCTTCCGAAGGCAGCCCTTACTAGTGCCAAGGCAATGGCACCCAGCCC

**ACGCGT**ACGCGGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >MG218435 representing NM\_001162479  
 Red=Cloning site Green=Tags(s)

MESQASENGSQTSSGVTDDYSSWYIEEPLGAEVQPEGVIPLCQLTAPPALLHACLASLSFLVLLLLALL  
 VRRRRLWPRCGHRGLGLPSPVDFLAGDL SWTVPAAVFVVLFSNLCLLLPDENPLPFLNL TAASSPDGEME  
 TSRGPWKLLALL YYPALYYPLAACASAGHQAFLGTVLSWAHFGVQVWQKAACPDPKIYKHYSLLASL  
 PLLLLGLGFLSLWYPVQLVQSLRHPTGAGSQGLQTSYSEKYLRTLLCPKKLDSCSHPASKRSLLSRAWAFS  
 HHSIYTPQPGFRLPLKLVISATLTGTATYQVALLLLVSVVPTVQKVRAGINTDVSYLLAGFGIVLSEDRQ  
 EVVELVKHHLWTVEACYISALVLSCASTFLLLIRSLRTHRANLQALHRGAALDLDPPQLSIHPSRQAIVS  
 WMSFCAYQTAFSCLGLLVQQVIFFLGTTSLAFLVFVPLLHGRNLLLLRSLESTWPFWLTVALAVILQNI  
 ANWIFLRTHHGYPELTNRRMLCVATFLLFPINMLVGAIMAVWRVLISSLYNTVHLGQMDLSLLPQRAASL  
 DPGYHTYQNFLRIEASQSHPGVIAFCALLLHAPSPQRPPLAPQDSL RPAEEEEGMQLLQTKDLMAKGAG  
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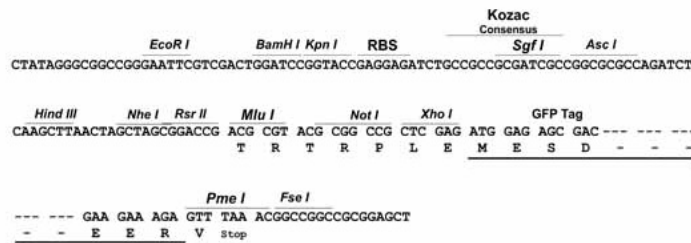
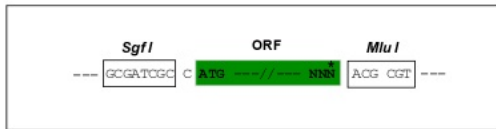
TRTRPLE - GFP Tag - V

**Restriction Sites:**

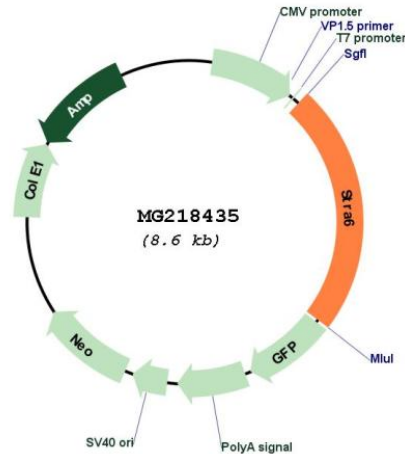
Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



## Plasmid Map:



ACCN: NM\_001162479

ORF Size: 2010 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\\_001162479.1](#), [NP\\_001155951.1](#)

RefSeq Size: 2889 bp

RefSeq ORF: 2013 bp

Locus ID: 20897

UniProt ID: [O70491](#)

Cytogenetics: 9 B

**Gene Summary:** Functions as retinol transporter (PubMed:23839944, PubMed:24852372). Accepts all-trans retinol from the extracellular retinol-binding protein RBP4, facilitates retinol transport across the cell membrane, and then transfers retinol to the cytoplasmic retinol-binding protein RBP1. Retinol uptake is enhanced by LRAT, an enzyme that converts retinol to all-trans retinyl esters, the storage forms of vitamin A (By similarity). Contributes to the activation of a signaling cascade that depends on retinol transport and LRAT-dependent generation of retinol metabolites that then trigger activation of JAK2 and its target STAT5, and ultimately increase the expression of SOCS3 and inhibit cellular responses to insulin (PubMed:21368206, PubMed:23839944). Important for the homeostasis of vitamin A and its derivatives, such as retinoic acid and 11-cis-retinal (PubMed:22467576, PubMed:24852372). STRA6-mediated transport is particularly important in the eye, and under conditions of dietary vitamin A deficiency (PubMed:22467576, PubMed:23839944, PubMed:24852372). Does not transport retinoic acid (By similarity).[UniProtKB/Swiss-Prot Function]