

## SCD6-MS2

**Target sequence description:** 474 bp upstream + 1047 scd6 ORF no stop + 480 bp restriction site/linker/ MS2 (no ATG no stop)/3xFLAG/stop + 1232 bp scd6 3'UTR = 3233 bp

**Protein sequence:** full-length protein M1 to F349

### DNA Sequence

TGCTCGTAACAATCTTGGCCTAGCTTCCAGGGTGTCTGTACTTTTACGCAGCATCATATTTTCTCTATTTT  
TGCACATCTTCTTGCTCTTCTTATATTTACCAATTATCTGAAATAGTCACTCGGACCGAGATGCAAAAATC  
GGATTTAAACTCGATCCGAGGAGAACACCAAATGACACAACCTTCTATCAATGCAATTGCCCTCTAAGTA  
TCATAGATGCCGCTATTTTAAATGACAGTGAATCGATTTCCATATTAATGGATAAAGGTGTTTATTATG  
AAGATACCCACTACTGACGTATATGTAATGATTCTCAGTCCAGTACCATAGTCCCGTCACCTTACACGGT  
GGAAAAATTAACTGTACCCGCGATTGTAAAGAATAACGTGGAGGCAGTCAGAAAGAACAATAAACGA  
ATAGTGAGGATGTCGTAGAAGAAGCATTATCGAAAAACAGCAGCAAGGCAATGTCGCAGTACATCGG  
TAAACTATTTCTTTAATCTCTGTGACTGACAACAGATATGTGGGGCTGTTAGAAGATATTGACTCTGAA  
AAGGGTACCGTGACTTTGAAAGAAGTTCGCTGTTTTGGTACAGAAGGTCGCAAGAACTGGGGTCTGA  
AGAAATTTATCCGAATCTACGGTATACAATTCTGTAAAGTTCAACGGCAGTGAAGTCAAGGATTTAAGC  
ATTTTAGATGCTAACATCAATGACATACAGCCGGTTGTTCTCAAATGATGCCACCCGCTTCACAATTCCC  
TCCTCAACAAGCTCAATCTCCACCCCAGGCTCAAGCTCAAGCACACGTGCAAACAACCCCAAGTTCCA  
AAGCCCGAATCCAATGTGCCAGCAGCTGTCGCTGGATATGGTGTTTACACCCCAACTTCGACAGAAACC  
GCTACTGCTAGTATGAATGATAAGAGCACTCCTCAAGACACCAATGTAAACTCGCAAAGTAGGGAAAGA  
GGTAAAAATGGTGA AAAATGAGCCAAAATATCAAAGAAACAAGAATAGATCAAGTAATCGCCCTCCTCAA  
TCCAACCGCAATTTCAAAGTCGATATCCGAATGAAGATTTTGACTTTCAATCAAATAATGCAAAAATCAC  
GAAAGGTGATTCCACTGATGTGGAAAAAGAAAAAGAATTAGAATCAGCTGTTCAAGCAGGATGAAT  
CTGATGAGCAGTTTTATAATAAAAAATCGTCTTTTTTCGACACCATCTCCACTTCTACTGAAACTAATACC  
AATATGAGATGGCAAGAAGAAAAAATGTTGAACGTTGACACCTTTGGACAAGCTTCTGCCAGACCAAGA  
TTTCACTCTAGAGCCTCGGTGCTGGGCGTGGAATTATAGGGGAAACAGAGGAAACAGAGGAAGAG  
GCGGCCAACGTGGAAACTACCAAAAACAGAAATAACTACCAAAATGATAGTGGCGCCTATCAGAACCAA  
AACGACTCGTACAGCAGACCAGCCAACAGTTTTTCGCAACCTCCTCCAACGTTGAATTTCTCGAGGGTG  
GTGGTGGTGGTCTGCTTCTAACTTTACTCAGTTCGTTCTCGTCGACAATGGCGGAACTGGCGACGTGAC  
TGTCGCCCAAGCAACTTCGCTAACGGGGTCGCTGAATGGATCAGCTCTAACTCGCGATCACAGGCTTA  
CAAAGTAACCTGTAGCGTTTCGTCAGAGCTCTGCGCAGAATCGCAAATACACCATCAAAGTCGAGGTGCC  
TAAAGTGGCAACCCAGACTGTTGGTGGTGAAGAGCTTCTGTAGCCGGATGGAGATCTTACTTAAATAT  
GGAATAACCATCCAATTTTCGCCACGAATTCGACTGCGAGCTTATTGTTAAGGCAATGCAAGGTCTC  
CTAAAAGATGGAAACCCGATTCCTCGGCCATCGCAGCAAACCTCCGGCATCTACGACTACAAAGACCAT  
GACGGTGAATATAAAGATCATGACATCGACTACAAGGATGACGATGACAAGTAAATGATGTTTCTATG  
TAAATTAAGTATATCATTAGTATGTACATACAAAAATCAAATTAATAGTATTATAGTCCGCGCCTCTGGA  
TAGTATTATTTAGTGCATATCGCAAAAATATGAATAGCACAGAGGTTCAATATTATGTTCTGAGTATGAG  
GACGAGGTAATACATACCTTAAAATCTTACATCATGTGGATAGCATTTATGGCTTCTCCATCCGGCCGT  
ACGCTTCTGTTCTGTCCCTAGCCATAGCTTTTCTCATATCAAAGCATCTTTATTGTCATCTACTTTTTTCA  
GGGTATCTGGATACCATCTTACAGCTGAGTTATAATATCCCAACTCTCCTGTAGACACTGTATCCCAAT  
TTTTCGTAAAGTTGATGGCCAATTGGTATTGCACTTGACGAAAAGATCGATAAAGTTGACTTCATGGG

GCATGACATCGGTCATGGTCTCCAAAGTATTACATAACTTCGAAGCTAGCGATATTCGGCGGAATCTTGG  
 AGCTACTGTCACTGCAGTTATATGAGTGTGCCACTCCGTGGTCTTGCCTTCTGTTTTGCCATCATGTAAC  
 CAGAGATATTATGCTTAAATGTAGGATCAACAGTCATTTCTGAACTTTTGAAAAAAGGTCTGGCCATAT  
 TATCATGTATCAAATAAAACTCTAAAGGGAAGTTTTCTGTTAAGATATCAAGGTTGACATTGTTAGTTT  
 TGAATAAATCGACAGGTTCAAAGGCTGAATTGTTGTCATTTCTCGAATCCTCCTGTCTCTTTCCTTGAAT  
 ATTCTCAATGTTCCACTATCTTTCACATAAGCAATATTGTGAACTATATATACTTCATTAGATATTGCTTCA  
 ACATTAATATTAATAAAAAGGACATGCATAAAGTAACATCCGAACATCTCCAAACACCCATACATATTTA  
 TATTATCGACGAGGGAATTTTTTCTTCCCAGGCCACCAACGTGCGCCACCGCTATGTTTTTTCGCGCT  
 AGGTAGGTGGGCTAGCTTCTATGTATCAAAGCTCCTTCTGCGCAGCCGAGTTTTGCTAAGCACTACCGC  
 ATTGGAATGACTGTGTTTGTAGGAGCTCCTTGTCTCCACGCTTTCGCAATTTTCAAGATCGAGATACTATT  
 AGTGATGGTAAGGTTATGAAGCTTACATGTTTAATATTGTAGATTCCAGAAGCAGGTAAGAACAACAAA  
 CTACAAGAAAAGGGTA

## Legend

1. TGCTCG ..... AAGGCA = SCD6 native promoter (474 bp)
2. **ATGTCGCAG** ..... **GTTGAATTT** = Scd6 cds minus stop codon (1047); start codon highlighted yellow
3. **GGTGGTGGTGGTGGTTCT** = linker
4. **GCTTCTAACTTTACTCAGTTCGTTCTCGTCGACAATGGCGGAACTGGCGACGTGACTGTCGCCCC  
 AAGCAACTTCGCTAACGGGTCGCTGAATGGATCAGCTCTAACTCGCGATCACAGGCTTACAAA  
 GTAACCTGTAGCGTTCGTCAGAGCTCTGCGCAGAATCGCAAATACACCATCAAAGTCGAGGTGC  
 CTAAGTGGCAACCCAGACTGTTGGTGGTGAAGAGCTTCTGTAGCCGGATGGAGATCTTACTT  
 AAATATGGAACCTAACATTCCAATTTTCGCCACGAATCCGACTGCGAGCTTATTGTTAAGGCAA  
 TGCAAGGTCTCCTAAAAGATGGAAACCCGATTCCCTCGGCCATCGCAGCAAACCTCCGGCATCTA  
 C = MS2 minus start minus stop (387 bp)**
5. **GACTACAAAGACCATGACGGTGATTATAAAGATCATGACATCGACTACAAGGATGACGATGAC  
 AAGTAA** = 3xFlag tag + Stop codon
6. AATGAT ..... AAGGGTA = Scd6 3' UTR (1232 bp)

## Notes

Lsm domain Q3-D78

**CAGTACATCGGTAAAACCTATTTCTTTAATCTCTGTGACTGACAACAGATATGTGGGGCTGTTAGAAGATA  
 TTGACTCTGAAAAGGGTACCGTGACTTTGAAAGAAGTTCGCTGTTTTGGTACAGAAGGTCGCAAGAACT  
 GGGTCTCGAAGAAATTTATCCGAATCCTACGGTATAACAATTCTGTAAAGTTCAACGGCAGTGAAGTCA  
 AGGATTTAAGCATTTTAGAT**

RGG boxes S287-N318

TCTAGAGGCCTCGGTCGTGGGCGTGGAAATTATAGGGGAAACAGAGGAAACAGAGGAAGAGGCGGCC  
AACGTGGAAACTACCAAACAGAAATAAC

## ΔLsm-SCD6-MS2

**Description:** YCplac111 - 474 bp upstream – SCD6 cds (minus 228 bp near the N-terminus) - linker – MS2CP (minus ATG minus stop) – 3xFlag – stop (TAA) – 3'UTR Scd6 (1232 bp) – Ycplac111

**Protein sequence alteration:** deletion from Q3 to D78 (76 aa, corresponding to Lsm domain (see Scd6 multiple sequence alignment)).

### DNA Sequence

GCATGCCTGCAGGTGCGACTCTAGTTGCTCGTAACAATCTTGGCCTAGCTTCCAGGGTGTCTGTAC  
TTTTACGCAGCATCATATTTTCTCTATTTTTGACATCTTCTTGTCTTCTTATTTACCAATTAT  
CTGAAATAGTCACTCGGACCGAGATGCAAAAATCGGATTTAAACTCGATCCGAGGAGAACAC  
CAAATGACACAACCTTCTATCAATGCAATTGCCCTCTAAGTATCATAGATGCCGCTATTTTAAATG  
ACAGTGCAATCGATTTCCATATTAATGGATAAAGGTGTTTATTATGAAGATACCCATTACTGAC  
GTATATGTAATGATTCCTCAGTCCAGTACCATAGTCCCGTACCTTACACGGTGGAAAAATTTAA  
CTGTACCCGCGATTGTAAAGAATAACGTGGAGGCAGTCAGAAAGAACAATAAACGAATAGTGA  
GGATGTCGTAGAAGAAGCATTATCGAAAAACAGCAGCAAGGCAATGTCGGCTAACATCAATG  
ACATACAGCCGGTTGTTCTCAAATGATGCCACCCGCTTCACAATTCCCTCCTCAACAAGCTCAA  
TCTCCACCCAGGCTCAAGCTCAAGCACACGTGCAAACAAACCCCAAGTTCCAAAGCCCGAAT  
CCAATGTGCCAGCAGCTGTCGCTGGATATGGTGTTTACACCCCACTTCGACAGAAACCGCTAC  
TGCTAGTATGAATGATAAGAGCACTCCTCAAGACACCAATGTAAACTCGCAAAGTAGGGAAAG  
AGGTAAAAATGGTGAATAAGGCCAAAATATCAAAGAAACAAGAATAGATCAAGTAATCGCCC  
TCCTCAATCCAACCGCAATTTCAAAGTCGATATTCCGAATGAAGATTTTGACTTTCAATCAAATA  
ATGCAAAATTCACGAAAGGTGATTCCACTGATGTGGAAAAAGAAAAAGAATTAGAATCAGCTG  
TTCACAAGCAGGATGAATCTGATGAGCAGTTTATAATAAAAAATCGTCTTTTTTCGACACCATC  
TCCACTTCTACTGAAACTAATACCAATATGAGATGGCAAGAAGAAAAAATGTTGAACGTTGACA  
CCTTTGGACAAGCTTCTGCCAGACCAAGATTTCACTCTAGAGGCCTCGGTCGTGGGCGTGGAAA  
TTATAGGGGAAACAGAGGAAACAGAGGAAGAGGCGGCCAACGTGGAAACTACCAAACAGAA  
ATAACTACCAAATGATAGTGGCGCCTATCAGAACCAAACGACTCGTACAGCAGACCAGCCAA  
CCAGTTTTCGCAACCTCCTTCCAACGTTGAATTTCTCGAGGGTGGTGGTGGTTCTGCTTCTA  
ACTTTACTCAGTTCGTTCTCGTCGACAATGGCGGAACTGGCGACGTGACTGTGCCCCAAGCAA  
CTTCGCTAACGGGGTCGCTGAATGGATCAGCTCTAACTCGCGATCACAGGCTTACAAAGTAACC  
TGTAGCGTTCGTCAGAGCTCTGCGCAGAATCGCAAATACCCATCAAAGTCGAGGTGCCTAAAG  
TGGCAACCCAGACTGTTGGTGGTGAAGAGCTTCTGTAGCCGGATGGAGATCTTACTTAAATAT  
GGAATAACCATTCCAATTTTCGCCACGAATTCGACTGCGAGCTTATTGTTAAGGCAATGCAA  
GGTCTCCTAAAAGATGGAAACCCGATTCCCTCGGCCATCGCAGCAAACCTCCGGCATCTACGACT  
ACAAAGACCATGACGGTGATTATAAAGATCATGACATCGACTACAAGGATGACGATGACAAGT  
AAAATGATGTTTCTATGTAAATTAAGTATATCATTAGTATGTACATACAAAATCAAATTAATA  
GTATTATAGTCCGCGCCTCTGGATAGTATTATTTAGTGCATATCGCAAATATGAATAGCACAG  
AGGTTCAATTATTATGTTCTGAGTATGAGGACGAGGTAATACATACCTTAAATCTTACATCATGT  
GGATAGCATTATGGCTTCTCCATCCGCGGTACGCTTCTGTTCTGTCCCTAGCCATAGCTTTT  
CTCATATCAAAGCATCTTTATTGTCATCTACTTTTTTTCAGGGTATCTGGATACCCATCTTCAGCT  
GAGTTATAATATCCCACTCTCCTGTAGACTGTATCCAATTTTTCGTAAAGTTTGGTGGCC

AATTGGTTATTGCACTTGACGAAAAGATCGATAAAGTTGACTTCATGGGGCATGACATCGGTCA  
TGGTCTCCAAAGTATTACATAACTTCGAAGCTAGCGATATTCGGCGGAATCTTGGAGCTACTGT  
CACTGCAGTTATATGAGTGTGCCACTCCGTGGTCTTGCCTTCTGTTTTGCCATCATGTAACCAG  
AGATATTATGCTTAAATGTAGGATCAACAGTCATTTCTGAACTTTGAAAAAAGGTCTGGCCAT  
ATTATCATGTATTCAAATAAACTCTAAAGGGAAGTTTTCTGTTAAGATATCAAGGTTGACATT  
GTTAGTTTTGAATAAATCGACAGGTTCAAAGGCTGAATTGTTGTCATTTCTCGAATCCTCCTGT  
CTCTTTCCTTGAATATTCTCAATGTTCCACTATCTTTCACATAAGCAATATTGTGAACTATATATAC  
TTCATTAGATATTGCTTCAACATTAATTAATAAAAAGGACATGCATAAAGTAACATCCGAACA  
TCTCCAAACACCCATACATATTTATATTATCGACGAGGGAATTTTTTTCTTCCCAGGCCACCAAC  
GTGCGCCCACCGCTATGTTTTTTCGCGCTAGGTAGGTGGGCTAGCTTCTATGTATCAAAGCTCCT  
TCTGCGCAGCCGAGGTTTTGCTAAGCACTACCGCATTGGAATGACTGTGTTTGTAGGAGCTCCT  
TGTCTCCACGCTTTCGCAATTTCAAGATCGAGATACTATTAGTGATGGTAAGGTTATGAAGCTT  
ACATGTTTAATATTGTAGATTCCAGAAGCAGGTAAGAACAACAACTACAAGAAAAGGGTA  
CCCGGGTACCGAGCTCGAATTCACTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCTGG

### Legend

1. GCATGC = SphI restriction site
2. CTGCAGGTCGACTCTAGT = vector DNA
3. TGCTCG ..... AAGGCA = SCD6 native promoter (474 bp)
4. ATGTCGGCTA ..... GAATTT = Scd6 cds with 228 bp Lsm deletion minus stop codon (819 bp); start codon highlighted yellow
5. GGTGGTGGTGGTGGTTCT = linker
6. GCTTCTAACTTTACTCAGTTCGTTCTCGTCGACAATGGCGGAACTGGCGACGTGACTGT  
CGCCCCAAGCAACTTCGCTAACGGGGTCGCTGAATGGATCAGCTCTAACTCGCGATCAC  
AGGCTTACAAAGTAACCTGTAGCGTTCGTCAGAGCTCTGCGCAGAAATCGAAATACACC  
ATCAAAGTCGAGGTGCCTAAAGTGGCAACCCAGACTGTTGGTGGTGAAGAGCTTCCTG  
TAGCCGGATGGAGATCTTACTTAAATATGGAACCTAACCATTCCAATTTTCGCCACGAAT  
TCCGACTGCGAGCTTATTGTTAAGGCAATGCAAGGTCTCCTAAAAGATGGAAACCCGA  
TTCCCTCGGCCATCGCAGCAAACCTCCGGCATCTAC = MS2 (387 bp)
7. GACTACAAAGACCATGACGGTGATTATAAAGATCATGACATCGACTACAAGGATGACG  
ATGACAAGTAA = 3xFlag tag + Stop codon
8. AATGAT ..... AAGGGTA = Scd6 3' UTR (1232 bp)
9. CCCGGG = SmaI restriction site
10. TACCGAGCTCGAATTCACTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCTGGC  
GTGAA = vector DNA

Deleted fragment corresponding to Q3-D78 (in original WT sequence; missing from construct above)

CAGTACATCGGTAAAAC TATTTCTTTAATCTCTGTGACTGACAACAGATATGTGGGGCTGTTAGA  
AGATATTGACTCTGAAAAGGGTACCGTGACTTTGAAAGAAGTTCGCTGTTTTGGTACAGAAGGT  
CGCAAGAACTGGGGTCCTGAAGAAATTTATCCGAATCCTACGGTATACAATTCTGTAAAGTTCA  
ACGGCAGTGAAGTCAAGGATTTAAGCATTTTAGAT

## Packing List



GenScript USA Inc.

860 Centennial Ave, Piscataway, NJ 08854, USA

Tel:732-885-9188 Fax:732-210-0262

E-mail: [order@genscript.com](mailto:order@genscript.com)

**Bill To:** Quira Zeidan

National Institutes of Health (NIH) - MD  
 2115 E Jefferson St., MSC 8500 Suite 4B 432  
 Bethesda, MD 20892, US  
 3014356962

**Ship To:** Quira Zeidan

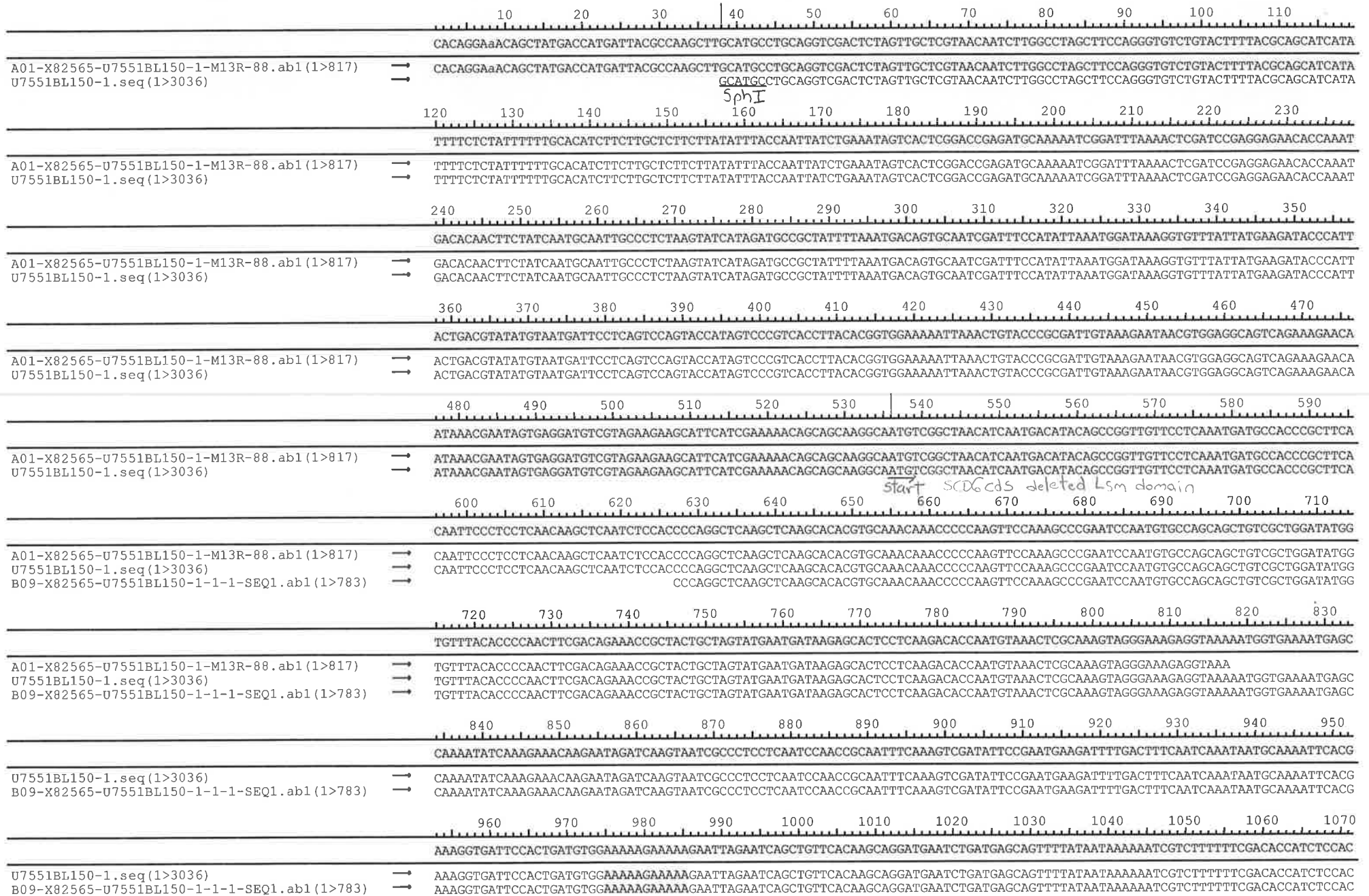
National Institutes of Health  
 (NIH) - MD  
 Bldg 6, BETHMC, 6 Center  
 Drive  
 Bethesda, MD 20892, US  
 3014356962

Customer No.	PO#	Order#	Order Date	Ship Via	Shipping Date	Terms	Total Weight	# Of Packages
204455	4420227	U7551BL150	2016-12-16	FedEx Domestic Standard Overnight		Net 30	0.5 (lb)	1/1

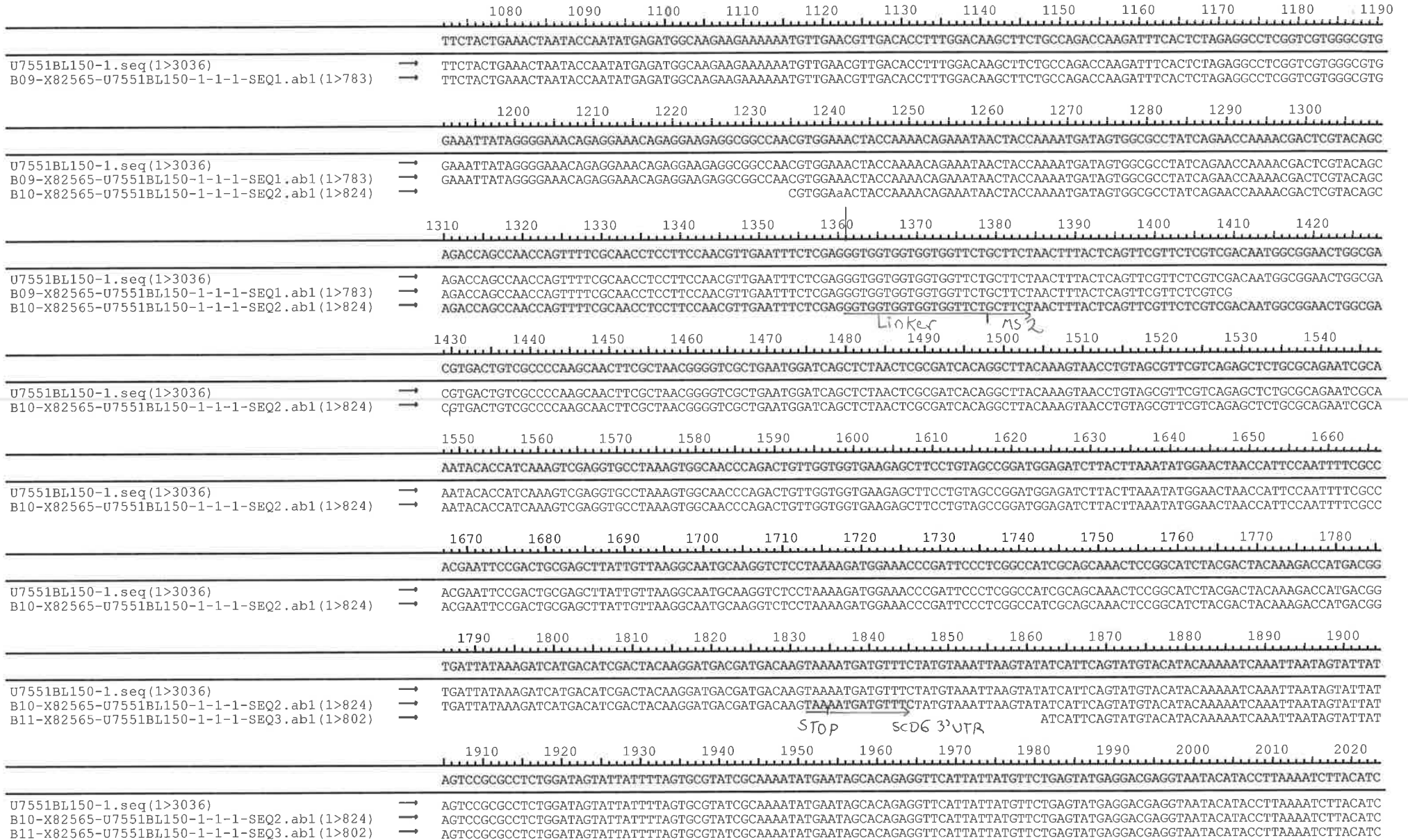
Item	Catalog number	Order Qty	Ship Qty	Description
U7551BL150_1	SC1023	1	1	DeltaLsm-Scd6-MS2: Target Insert Name: DeltaLsm-Scd6-MS2, Template information: Insert name: Scd6-MS2, Cloning site: SphI-SmaI, Vector name: YCpLac111, Vector size(bp): 6112, Resistance: Ampicillin, Copy number: Low, Target vector: Same as template, Plasmid preparation: Standard delivery: 4 µg (Free of charge)

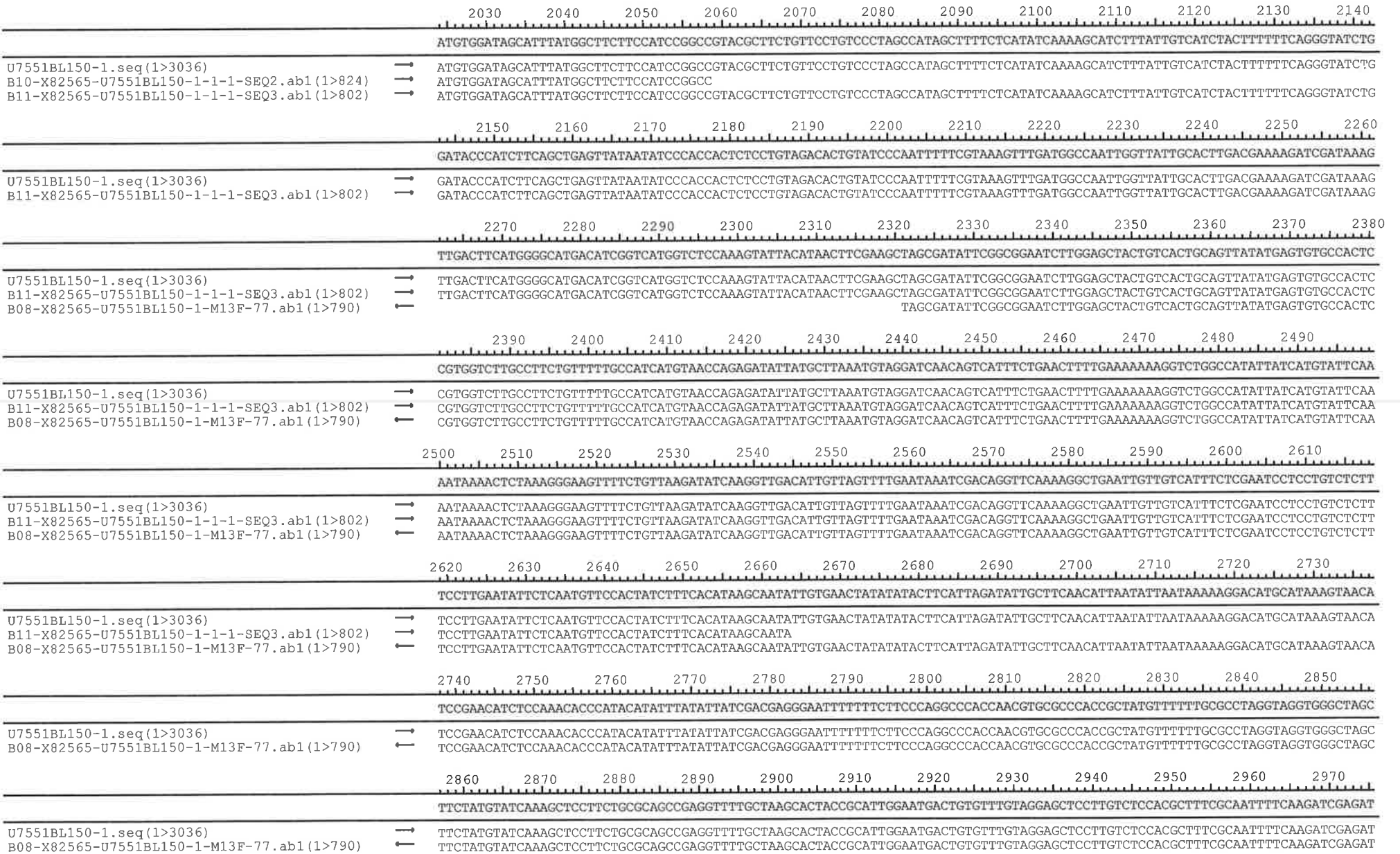
ALL REAGENTS ARE FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE. GENSCRIPT MAKES NO CLAIMS TO THE PRODUCT'S ABILITY TO FUNCTION IN THE SPECIFIC APPLICATION OF THE CUSTOMER.

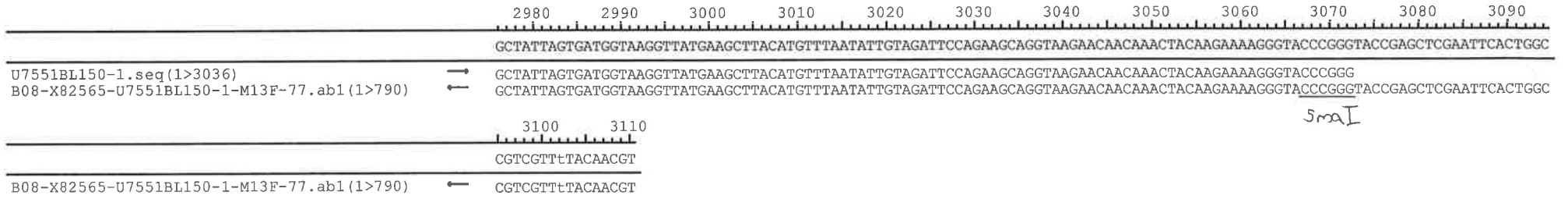
**This is the partial shipment of your #U7551BL150**











# Certificate of Analysis

**Project ID:** U7551BL150-1
**Construct Information:**
**Gene Name:** DeltaLsm-Scd6-MS2
**Clone ID:** X82565
**Cloning Vector:** YCpLac111
**Gene Length:** 3035 bp
**Cloning Strategy:** SphI / SmaI

QC Items	Specifications	Results	
<b>Sequencing Alignment</b>	Sequencing results are consistent with the targeted insert sequence.	Pass	Consistent
<b>Vector Sequence</b>	The flanking sequences of the cloning site are correct.	Pass	Correct Shown in the SQD file
<b>Restriction Digests</b>	The size of inserted fragment is correct and free of unexpected bands suggesting contamination.	Pass	Correct Shown in attachment 1
<b>DNA Quality</b>	Miniprep: 4 µg OD260/280=1.8~2.0 Free of contamination	Pass	≥ 4 µg OD260/280=1.81 Pure
<b>Quality grade</b>	Research Grade	Pass	Research Grade
<b>Appearance</b>	Clear and free of foreign particles.	Pass	Clear Free of foreign particles
<b>Additional Test</b>		N/A	

**NOTE**

Shipping at	Plasmid Storing at	Bacstab Storing at	Glycerol Stock Storing at
Room Temperature	-20°C	4°C	-20°C/-80°C


**Certified by:**
**Date:** 02/08/2017

Thank you for your patronage to our Gene services! To maintain this working relationship, we shall be grateful if you can add our webpage URL into your lab website. As a token of appreciation, you will be rewarded by 1,000 EZcoupon™ points. For more information, please contact us by e-mail at [web@genscript.com](mailto:web@genscript.com).

For research use only

860 Centennial Ave., Piscataway, NJ 08854, USA

Toll-Free: 1-877-436-7274

Tel: 1-732-885-9188

Fax: 1-732-210-0262

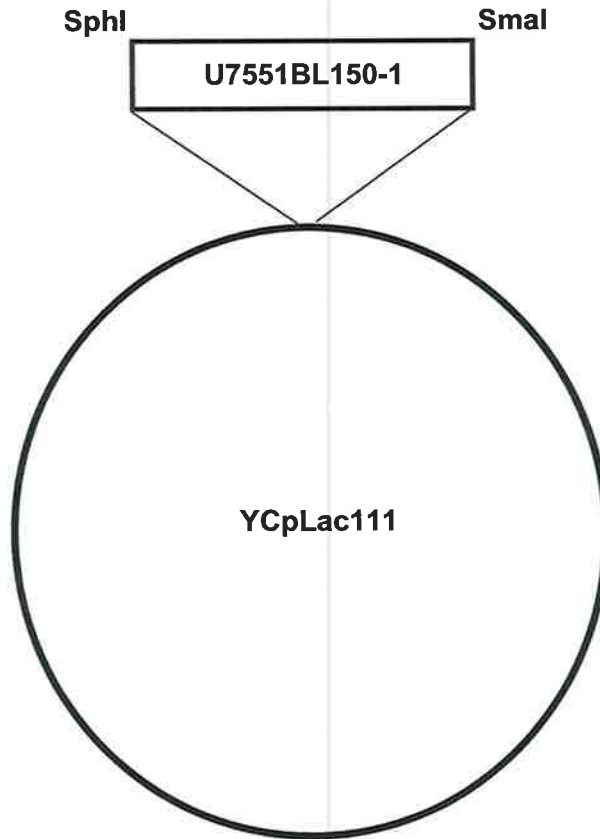
 Email: [order@genscript.com](mailto:order@genscript.com)

 Web: [www.genscript.com](http://www.genscript.com)

Attachment 1

**Plasmid Construct Map**

The gene was cloned in YCpLac111 by SphI / SmaI.

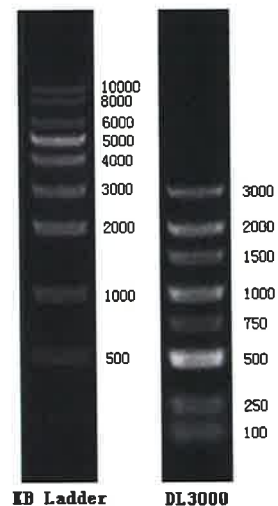


**Enzyme Digestion**



Lane M: KB Ladder  
Lane 1: U7551BL150-1 plasmid  
Lane 2: U7551BL150-1 plasmid digested by SphI and SmaI

**Digestion Conditions:**  
About 300ng plasmid digested  
Digestion in water-bath, 37°C for 40 minutes  
1% Agarose Gel



For research use only

860 Centennial Ave., Piscataway, NJ 08854, USA



CTCATATCAAAGCATCTTTATTGTCATCTACTTTTTTCAGGGTATCTGGATACCCATCTTCAGCT  
GAGTTATAATATCCCACCACTCTCCTGTAGACACTGTATCCCAATTTTTCGTAAAGTTTGATGGCC  
AATTGGTTATTGCACTTGACGAAAAGATCGATAAAGTTGACTTCATGGGGCATGACATCGGTCA  
TGGTCTCAAAGTATTACATAACTTCGAAGCTAGCGATATTCGGCGGAATCTTGGAGCTACTGT  
CACTGCAGTTATATGAGTGTGCCACTCCGTGGTCTTGCCTTCTGTTTTTGCATCATGTAACCAG  
AGATATTATGCTTAAATGTAGGATCAACAGTCATTTCTGAACTTTTGAAAAAAGGTCTGGCCAT  
ATTATCATGTATTCAAATAAACTCTAAAGGGAAGTTTTCTGTTAAGATATCAAGGTTGACATT  
GTTAGTTTTGAATAAATCGACAGGTTCAAAGGCTGAATTGTTGTCATTTCTCGAATCCTCCTGT  
CTCTTTCCTTGAATATTCTCAATGTTCCAATCTTTTACATAAGCAATATTGTGAACTATATATAC  
TTCATTAGATATTGCTTCAACATTAATATTAATAAAAAGGACATGCATAAAGTAACATCCGAACA  
TCTCCAAACACCCATACATATTTATATTATCGACGAGGGAATTTTTTTCTTCCCAGGCCACCAAC  
GTGCGCCACCGCTATGTTTTTGCCTAGGTAGGTGGGCTAGCTTCTATGTATCAAAGCTCCT  
TCTGCGCAGCCGAGGTTTTGCTAAGCACTACCGCATTGGAATGACTGTGTTTGTAGGAGCTCCT  
TGTCTCCACGCTTTCGCAATTTTCAAGATCGAGATACTATTAGTGATGGTAAGGTTATGAAGCTT  
ACATGTTTAATATTGTAGATTCCAGAAGCAGGTAAGAACAACAACTACAAGAAAAGGGTACCC  
GGGTACCGAGCTCGAATTCCTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCCTGGCGT  
GAA

### Legend

1. GCATGC = SphI restriction site
2. CTGCAGGTCGACTCTAGT = vector DNA
3. TGCTCG ..... AAGGCA = SCD6 native promoter (474 bp)
4. ATGTCGCAG ..... GAATTTCTCGAG = Scd6 cds with 96 bp RGG deletion minus stop codon (957 bp); start codon highlighted yellow
5. GGTGGTGGTGGTGGTCT = linker
6. GCTTCTAACTTTACTCAGTTCGTTCTCGTCGACAATGGCGGAACTGGCGACGTGACTGT  
CGCCCAAGCAACTTCGCTAACGGGGTCGCTGAATGGATCAGCTCTAACTCGCGATCAC  
AGGCTTACAAAGTAACCTGTAGCGTTCGTCAGAGCTCTGCGCAGAATCGAAATACACC  
ATCAAAGTCGAGGTGCCTAAAGTGGCAACCAGACTGTTGGTGGTGAAGAGCTTCCTG  
TAGCCGGATGGAGATCTTAAATATGGAATAACCAATTTTCGCCACGAAT  
TCCGACTGCGAGCTTATTGTTAAGGCAATGCAAGGTCTCCTAAAAGATGGAAACCCGA  
TTCCTCGGCCATCGCAGCAAACCTCCGGCATCTAC = MS2 (387 bp)
7. GACTACAAAGACCATGACGGTGATTATAAAGATCATGACATCGACTACAAGGATGACG  
ATGACAAGTAA = 3xFlag tag + Stop codon
8. AATGAT ..... AAGGGTA = Scd6 3' UTR (1232 bp)
9. CCCGGG = SmaI restriction site

10. TACCGAGCTCGAATTCACTGGCCGTCGTTTTACAACGTCGTGACTGGGAAAACCTGGC  
GTGAA = vector DNA

Deleted fragment corresponding to S287-N318 (in original WT sequence; missing from construct above)

TCTAGAGGCCTCGGTCGTGGGCGTGGAAATTATAGGGGAAACAGAGGAAACAGAGGAAGAGG  
CGGCCAACGTGGAAACTACCAAACAGAAATAAC

From ATG to beginning of RGG box = 858 bp = 286 aa

C-terminus = aa Y319 to aa E349



## Packing List



GenScript USA Inc.

860 Centennial Ave, Piscataway, NJ 08854, USA

Tel: 732-885-9188 Fax: 732-210-0262

E-mail: [order@genscript.com](mailto:order@genscript.com)

**Bill To:** Quira Zeidan

National Institutes of Health (NIH) - MD  
 2115 E Jefferson St., MSC 8500 Suite 4B 432  
 Bethesda, MD 20892, US  
 3014356962

**Ship To:** Quira Zeidan

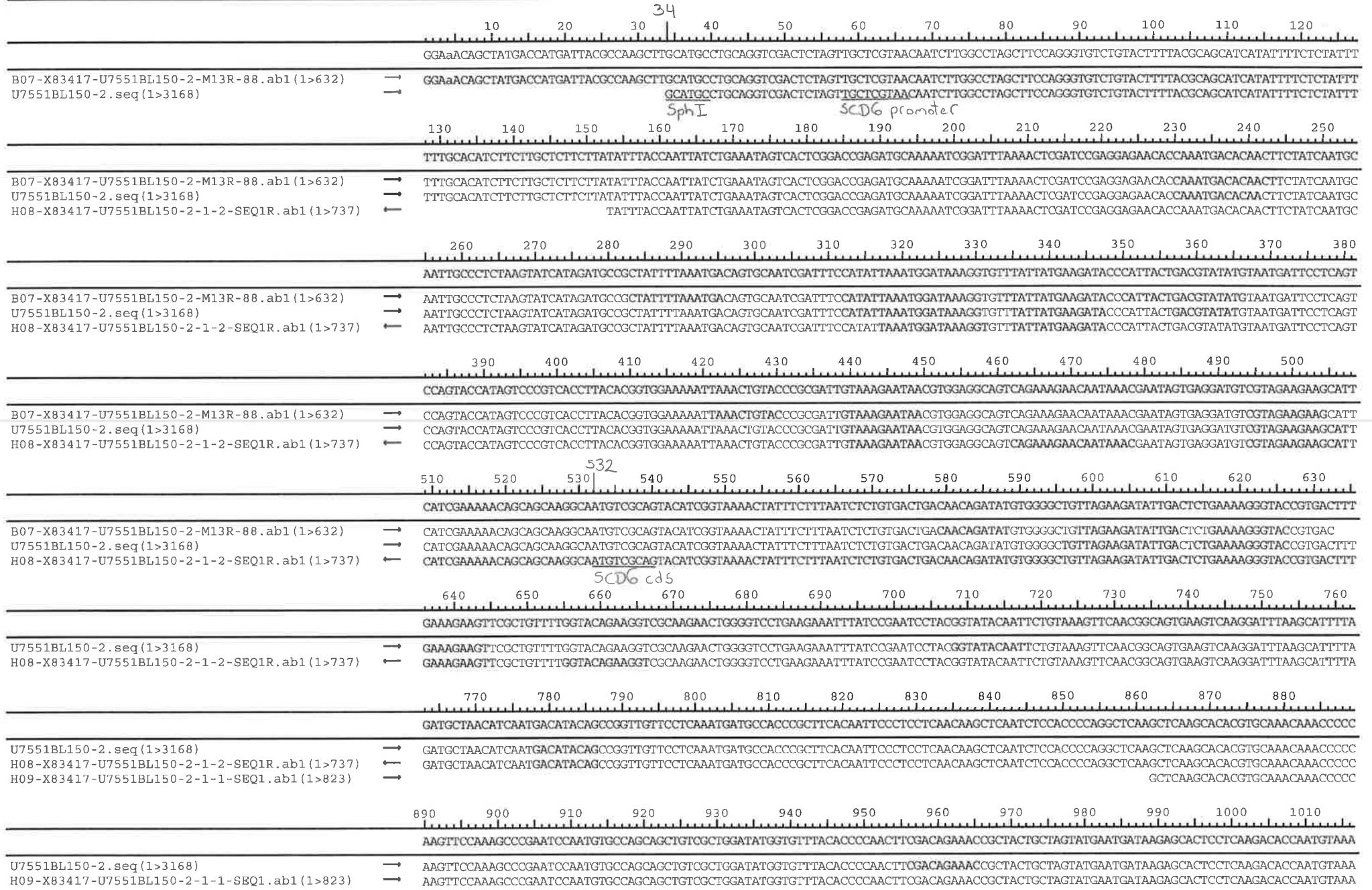
National Institutes of Health  
 (NIH) - MD  
 Bldg 6, BETHMC, 6 Center  
 Drive  
 Bethesda, MD 20892, US  
 3014356962

Customer No.	PO#	Order#	Order Date	Ship Via	Shipping Date	Terms	Total Weight	# Of Packages
204455	4420227	U7551BL150	2016-12-16	FedEx Domestic Standard Overnight		Net 30	0.5 (lb)	1/1

Item	Catalog number	Order Qty	Ship Qty	Description
U7551BL150_2	SC1023	1	1	DeltaRGG-Scd6-MS2: Target Insert Name: DeltaRGG-Scd6-MS2, Template information: Insert name: Scd6-MS2, Cloning site: SphI-SmaI, Vector name: YCpLac111, Vector size(bp): 6112, Resistance: Ampicillin, Copy number: Low, Target vector: Same as template, Plasmid preparation: Standard delivery: 4 µg (Free of charge)

ALL REAGENTS ARE FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE. GENSCRIPT MAKES NO CLAIMS TO THE PRODUCT'S ABILITY TO FUNCTION IN THE SPECIFIC APPLICATION OF THE CUSTOMER.

**This shipment completes your order #U7551BL150**



1020 1030 1040 1050 1060 1070 1080 1090 1100 1110 1120 1130 1140  
CTCGCAAAGTAGGGAAGAGGTAAAAATGGTGAAAATGAGCCAAAATATCAAAGAAAACAAGAAATAGATCAAGTAATCGCCCTCCTCAATCCAACCGCAATTTCAAAGTCGATATTCGGAATGAAGAT  
U7551BL150-2.seq (1>3168) →  
H09-X83417-U7551BL150-2-1-1-SEQ1.ab1 (1>823) →  
CTCGCAAAGTAGGGAAGAGGTAAAAATGGTGAAAATGAGCCAAAATATCAAAGAAAACAAGAAATAGATCAAGTAATCGCCCTCCTCAATCCAACCGCAATTTCAAAGTCGATATTCGGAATGAAGAT

1150 1160 1170 1180 1190 1200 1210 1220 1230 1240 1250 1260 1270  
TTTGACTTTCAATCAAATAATGCAAAATTCACGAAAGGTGATTCCACTGATGTGGAAAAAGAAAAAGAAATAGAAATCAGCTGTTTCAACAGCAGGATGAATCTGATGAGCAGTTTATAATAAAAAAT  
U7551BL150-2.seq (1>3168) →  
H09-X83417-U7551BL150-2-1-1-SEQ1.ab1 (1>823) →  
G05-X83417-U7551BL150-2-1-2-seq2r.ab1 (1>812) ←  
TTTGACTTTCAATCAAATAATGCAAAATTCACGAAAGGTGATTCCACTGATGTGGAAAAAGAAAAAGAAATAGAAATCAGCTGTTTCAACAGCAGGATGAATCTGATGAGCAGTTTATAATAAAAAAT  
GCTGTTTCAACAGCAGGATGAATCTGATGAGCAGTTTATAATAAAAAAT

1280 1290 1300 1310 1320 1330 1340 1350 1360 1370 1380 1390  
CGTCTTTTTTCGACACCATCTCCACTTCTACTGAAACTAATACCAATATGAGATGGCAAGAAGAAAAATGTTGAACGTTGACACCTTTGGACAAGCTTCTGCCAGACCAAGATTTCACTACCAAAA  
U7551BL150-2.seq (1>3168) →  
H09-X83417-U7551BL150-2-1-1-SEQ1.ab1 (1>823) →  
G05-X83417-U7551BL150-2-1-2-seq2r.ab1 (1>812) ←  
CGTCTTTTTTCGACACCATCTCCACTTCTACTGAAACTAATACCAATATGAGATGGCAAGAAGAAAAATGTTGAACGTTGACACCTTTGGACAAGCTTCTGCCAGACCAAGATTTCACTACCAAAA  
CGTCTTTTTTCGACACCATCTCCACTTCTACTGAAACTAATACCAATATGAGATGGCAAGAAGAAAAATGTTGAACGTTGACACCTTTGGACAAGCTTCTGCCAGACCAAGATTTCACTACCAAAA

1400 1410 1420 1430 1440 1450 1460 1470 1480 1490 1500 1510 1520  
TGATAGTGGCGCCTATCAGAACCAAACGACTCGTACAGCAGACAGCCAAACAGTTTTCGCAACCTCCTTCCAACGTTGAATTTCTCGAGGGTGGTGGTGGTTCGCTTCTAACCTTACTCAG  
U7551BL150-2.seq (1>3168) →  
H09-X83417-U7551BL150-2-1-1-SEQ1.ab1 (1>823) →  
G05-X83417-U7551BL150-2-1-2-seq2r.ab1 (1>812) ←  
TGATAGTGGCGCCTATCAGAACCAAACGACTCGTACAGCAGACAGCCAAACAGTTTTCGCAACCTCCTTCCAACGTTGAATTTCTCGAGGGTGGTGGTGGTTCGCTTCTAACCTTACTCAG  
TGATAGTGGCGCCTATCAGAACCAAACGACTCGTACAGCAGACAGCCAAACAGTTTTCGCAACCTCCTTCCAACGTTGAATTTCTCGAGGGTGGTGGTGGTTCGCTTCTAACCTTACTCAG

1530 1540 1550 1560 1570 1580 1590 1600 1610 1620 1630 1640 1650  
TTCGTTCTCGTCGACAATGGCGAAGTGGCGACGTGACTGTGCGCCCAAGCAACTTCGCTAACGGGGTTCGCTGAATGGATCAGCTCTAAGTCCGATCACAGGCTTACAAGTAACCTGTAGCGTTC  
U7551BL150-2.seq (1>3168) →  
H09-X83417-U7551BL150-2-1-1-SEQ1.ab1 (1>823) →  
G05-X83417-U7551BL150-2-1-2-seq2r.ab1 (1>812) ←  
TTCGTTCTCGTCGACAATGGCGAAGTGGCGACGTGACTGTGCGCCCAAGCAACTTCGCTAACGGGGTTCGCTGAATGGATCAGCTCTAAGTCCGATCACAGGCTTACAAGTAACCTGTAGCGTTC  
TTCGTTCTCGTCGACAATGGCGAAGTGGCGACGTGACTGTGCGCCCAAGCAACTTCGCTAACGGGGTTCGCTGAATGGATCAGCTCTAAGTCCGATCACAGGCTTACAAGTAACCTGTAGCGTTC

1660 1670 1680 1690 1700 1710 1720 1730 1740 1750 1760 1770  
GTCAGAGCTCTGCGCAGAATCGCAAATACACCATCAAAGTCGAGGTGCCTAAAGTGGCAACCCAGACTGTGGTGGTGAAGAGCTTCCCTGTAGCCGGATGGAGATCTTACTTAAATATGGAACATAAC  
U7551BL150-2.seq (1>3168) →  
H09-X83417-U7551BL150-2-1-1-SEQ1.ab1 (1>823) →  
G05-X83417-U7551BL150-2-1-2-seq2r.ab1 (1>812) ←  
GTCAGAGCTCTGCGCAGAATCGCAAATACACCATCAAAGTCGAGGTGCCTAAAGTGGCAACCCAGACTGTGGTGGTGAAGAGCTTCCCTGTAGCCGGATGGAGATCTTACTTAAATATGGAACATAAC  
GTCAGAGCTCTGCGCAGAATCGCAAATACACCATCAAAGTCGAGGTGCCTAAAGTGGCAACCCAGACTGTGGTGGTGAAGAGCTTCCCTGTAGCCGGATGGAGATCTTACTTAAATATGGAACATAAC

1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900  
CATTCCAATTTTCGCCACGAATTCGACTGCGAGCTTATTGTTAAGGCAATGCAAGGTCCTTAAAAGATGGAACCCGATTCCCTCGGCCATCGCAGCAAACCTCCGCACTACAGACTACAAGAC  
U7551BL150-2.seq (1>3168) →  
G05-X83417-U7551BL150-2-1-2-seq2r.ab1 (1>812) ←  
CATTCCAATTTTCGCCACGAATTCGACTGCGAGCTTATTGTTAAGGCAATGCAAGGTCCTTAAAAGATGGAACCCGATTCCCTCGGCCATCGCAGCAAACCTCCGCACTACAGACTACAAGAC  
CATTCCAATTTTCGCCACGAATTCGACTGCGAGCTTATTGTTAAGGCAATGCAAGGTCCTTAAAAGATGGAACCCGATTCCCTCGGCCATCGCAGCAAACCTCCGCACTACAGACTACAAGAC

1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030  
CATGACGGTGATTTATAAAGATCATGACATCGACTACAAGGATGACGATGACAAGTAAAATGATGTTTCTATGTAAATTAAGTATATCATTCAGTATGTACATACAAAATCAAATTAATAGTATTAT  
U7551BL150-2.seq (1>3168) →  
G05-X83417-U7551BL150-2-1-2-seq2r.ab1 (1>812) ←  
H06-X83417-U7551BL150-2-1-1-SEQ3.ab1 (1>828) →  
CATGACGGTGATTTATAAAGATCATGACATCGACTACAAGGATGACGATGACAAGTAAAATGATGTTTCTATGTAAATTAAGTATATCATTCAGTATGTACATACAAAATCAAATTAATAGTATTAT  
CATGACGGTGATTTATAAAGATCATGACATCGACTACAAGGATGACGATGACAAGTAAAATGATGTTTCTATGTAAATTAAGTATATCATTCAGTATGTACATACAAAATCAAATTAATAGTATTAT  
GTACATACAAAATCAAATTAATAGTATTAT

STOP

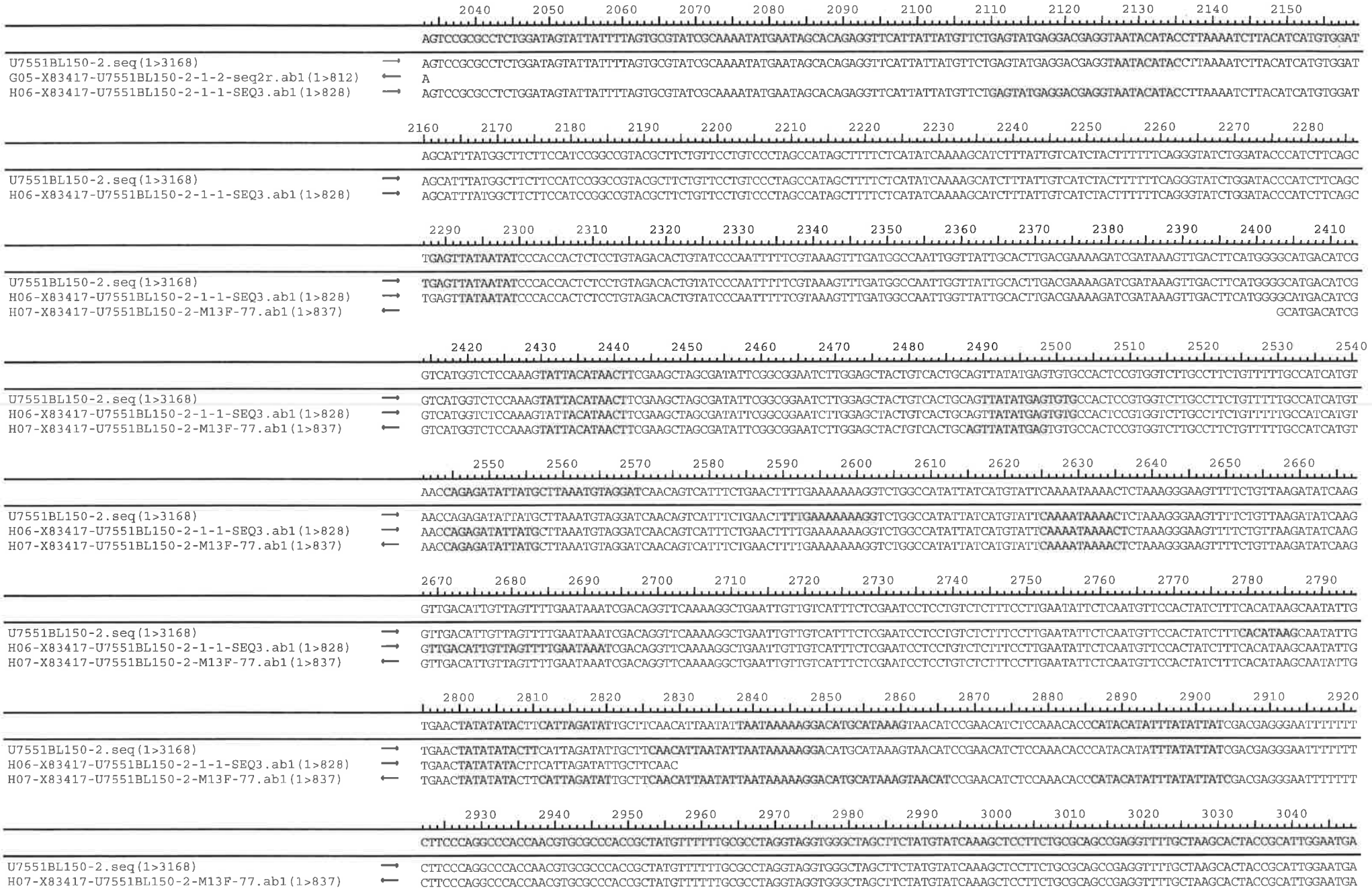
1489 after deleted fragment

linker MS2

MS2

MS2

MS2



3050 3060 3070 3080 3090 3100 3110 3120 3130 3140 3150 3160 3170  
CTGTGTTTGTAGGAGCTCCTTGTCTCCACGCTTTCGCAATTTTCAAGATCGAGATGCTATTAGTGATGGTAAGGTTATGAAGCTTACATGTTTAAATATTGTAGATTCCAGAAGCAGGTAAGAACAAC  
U7551BL150-2.seq (1>3168) → CTGTGTTTGTAGGAGCTCCTTGTCTCCACGCTTTCGCAATTTTCAAGATCGAGATGCTATTAGTGATGGTAAGGTTATGAAGCTTACATGTTTAAATATTGTAGATTCCAGAAGCAGGTAAGAACAAC  
H07-X83417-U7551BL150-2-M13F-77.ab1 (1>837) ← CTGTGTTTGTAGGAGCTCCTTGTCTCCACGCTTTCGCAATTTTCAAGATCGAGATGCTATTAGTGATGGTAAGGTTATGAAGCTTACATGTTTAAATATTGTAGATTCCAGAAGCAGGTAAGAACAAC

3180 3190 3200 3210 3220 3230  
AAACTACAAGAAAAGGGTACCCGGGTACCGAGCTCGAATTCACCTGGCCGTCGTTTACAACGTC  
U7551BL150-2.seq (1>3168) → AAACTACAAGAAAAGGGTACCCGGG  
H07-X83417-U7551BL150-2-M13F-77.ab1 (1>837) ← AAACTACAAGAAAAGGGTACCCGGGTACCGAGCTCGAATTCACCTGGCCGTCGTTTACAACGTC

SmaI

# Certificate of Analysis

**Project ID:** U7551BL150-2
**Construct Information:**
**Gene Name:** DeltaRGG-Scd6-MS2
**Clone ID:** X83417
**Cloning Vector:** YCpLac111
**Gene Length:** 3167 bp
**Cloning Strategy:** SphI / SmaI

QC Items	Specifications	Results	
<b>Sequencing Alignment</b>	Sequencing results are consistent with the targeted insert sequence.	Pass	Consistent
<b>Vector Sequence</b>	The flanking sequences of the cloning site are correct.	Pass	Correct Shown in the SQD file
<b>Restriction Digests</b>	The size of inserted fragment is correct and free of unexpected bands suggesting contamination.	Pass	Correct Shown in attachment 1
<b>DNA Quality</b>	Miniprep: 4 µg OD260/280=1.8~2.0 Free of contamination	Pass	≥ 4 µg OD260/280=1.86 Pure
<b>Quality grade</b>	Research Grade	Pass	Research Grade
<b>Appearance</b>	Clear and free of foreign particles.	Pass	Clear Free of foreign particles
<b>Additional Test</b>		N/A	

**NOTE**

Shipping at	Plasmid Storing at	Bacstab Storing at	Glycerol Stock Storing at
Room Temperature	-20°C	4°C	-20°C/-80°C


**Certified by:**
**Date:** 02/12/2017

Thank you for your patronage to our Gene services! To maintain this working relationship, we shall be grateful if you can add our webpage URL into your lab website. As a token of appreciation, you will be rewarded by 1,000 EZcoupon™ points. For more information, please contact us by e-mail at web@genscript.com.

For research use only

860 Centennial Ave., Piscataway, NJ 08854, USA

Toll-Free: 1-877-436-7274

Tel: 1-732-885-9188

Fax: 1-732-210-0262

Email: order@genscript.com

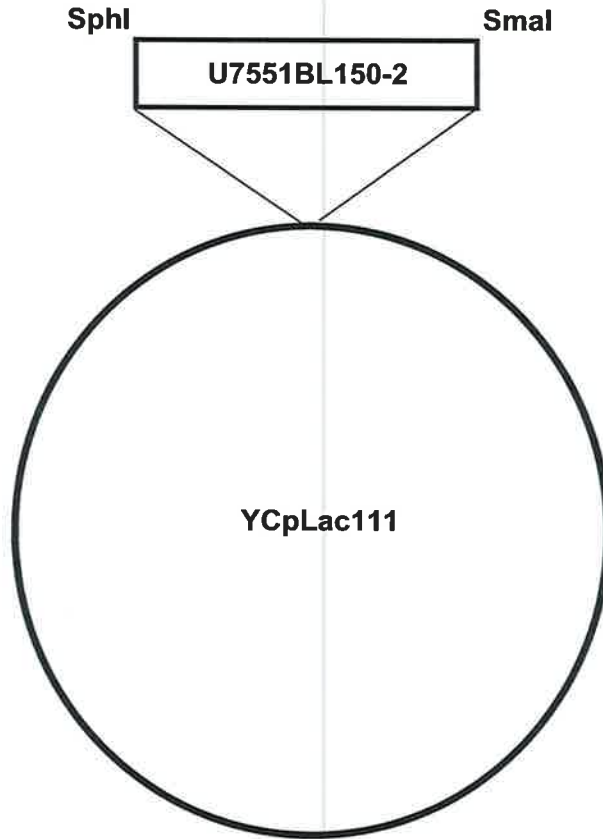
Web: www.genscript.com



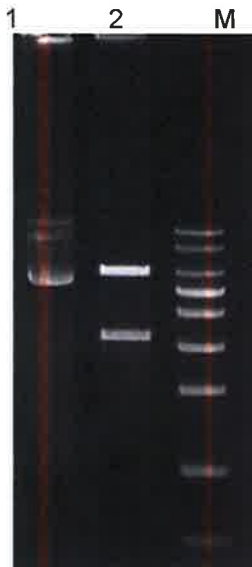
Attachment 1

**Plasmid Construct Map**

The gene was cloned in YCpLac111 by SphI / SmaI.

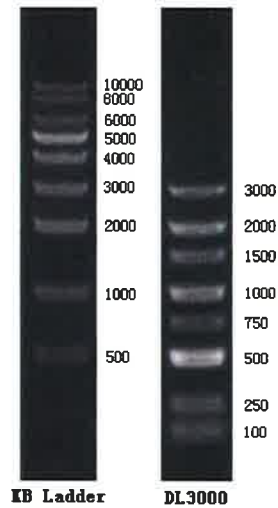


**Enzyme Digestion**



Lane M: KB Ladder  
Lane 1: U7551BL150-2 plasmid  
Lane 2: U7551BL150-2 plasmid digested by SphI and SmaI

**Digestion Conditions:**  
About 300ng plasmid digested  
Digestion in water-bath, 37°C for 40 minutes  
1% Agarose Gel



For research use only

860 Centennial Ave., Piscataway, NJ 08854, USA

