

## **S-1. List of oligonucleotides**

### **Oligonucleotides for RT-PCR**

**ETS sense (846-865)**, 5'- CATATATGCGCGTCCCCTG -3', sense, complementary to *T. brucei* 5'-ETS pre-rRNA from position 846-865, used for RT PCR of ETS pre-rRNA.

**SSU107**, 5'- GAGCCATGCGCAGATTCC-3', antisense, complementary to *T. brucei* SSU rRNA from position 79 -96, used to for RT-PCR of 5` ETS.

**ITS1-plasmid-sense**, 5'- CGAAAGTTCACCGATATTGC -3', sense, complementary to *T. brucei* SSU rRNA from position 2197-2216, used for RT-PCR of ITS1.

**ITS1 As 279-299**, 5'- GCGAGGTTTATATACACATAG-3', antisense, complementary to *T. brucei* ITS pre- rRNA from position 279-299, used for RT-PCR of ITS1.

**5.8S rRNA sense 23-40**, 5'- GGCTTCCTATTTTCGTTGA -3', sense, complementary to *T. brucei* 5.8S rRNA from position 23-40, used for RT-PCR of ITS2.

**ITS-2 AS**, 5'- CGTACACGAAAGAAGCAC-3', antisense, complementary to *T. brucei* ITS2 rRNA from position 361-378, used for RT-PCR of ITS2.

**LSU 5` sense (3` end)**, 5'- ACCGGCTTATCTGAAAAG -3', sense, complementary to *T. brucei* LSU-5' rRNA from position 1794-1811, used for RT-PCR of ITS3.

**srRNA1**, 5'- TAATGCGCCGAACTCACAAC -3', antisense, complementary to *T. brucei* srRNA1 rRNA from position 177 to 196, used for RT-PCR of ITS3.

**sr1 sense (165)**, 5'- AAAATGCAGCTCACCTACG -3', sense, complementary to *T. brucei* srRNA1 position 146 to 165, used for RT-PCR of ITS4.

**LSUB As 1-20**, 5'- GAGTACGGTCTGCAGTTGGG -3', antisense, complementary to *T. brucei* LSU 3' rRNA from position 1-20, used for RT-PCR of ITS4.

**LSUB 3'-80 sense**, 5'- GTTTAGACCGTCGTGAGACAG -3', sense, complementary to *T. brucei* LSU 3' rRNA from position 1406-1426, used for RT-PCR of ITS5.

**srRNA2 for PE**, 5'-GCATGGGAGTTCCTCTCGTA-3', antisense, complementary to *T. brucei* srRNA2 from position 51-70, used for RT-PCR of ITS5.

**srRNA2 sense**, 5'-TTGTGAAGGGATCTCGCAGG-3', sense, complementary to position 7-26 of *T. brucei* srRNA2, used for RT-PCR of ITS6.

**srRNA6 for PE**, 5'-GAAAATGAAGGTACTGGGCG-3', antisense, complementary to *T. brucei* srRNA6 from position 51-70, used for RT-PCR of ITS6.

**sr6 rRNA sense**, 5'- TCTCGAATCGCCACTTCTCT -3', sense, complementary to *T. brucei* srRNA6 from position 1-20, used for RT-PCR of ITS7.

**As ITS7**, 5'- GTAATGAAATTCTTCCGTTG -3', antisense, complementary to *T. brucei* ITS7 pre-rRNA from position 38-57, used for RT-PCR of ITS7.

**Tubulin sense**, 5'- TGCGTGAGGCTATCTGCATC -3', sense, complementary to position 2- 21 of Tb927.1.2380 ( $\alpha$ Tubulin).

**Tubulin antisense**, 5'-CCCTGAAGACCAGTGCAGTTG -3', antisense, complementary to position 381-401 of Tb927.1.2380 ( $\alpha$ Tubulin).

### **Oligonucleotides for synthesis of T7 transcribed RNA probes**

**ETS A0-62 sense (+10)**, 5'- TACCGTACGGAAGTAGTGTGTTTTGTGTTA-3' sense, specific to *T. brucei* 5' ETS rRNA, from position 934-952; unpaired nucleotides are highlighted in gray, used for synthesis of ETS PCR product for Northern analysis.

**18S +60 T7 AS (+10)**, 5'-TTAATACGACTCACTATAGGGAGAACAAACA

GGCATGCATGGCTAAGTCC-3', antisense, specific to *T. brucei* SSU rRNA, from position 42-60, carrying T7 promoter sequence (underlined); unpaired nucleotides are highlighted in gray, used for synthesis of ETS PCR product for Northern analysis.

**ITS2 473 sense (+10)**, 5'-TACCGTACGGGTGTATCACAGGAAGCAACT-3' sense, specific to *T. brucei* ITS2 rRNA, from position 473-492; unpaired nucleotides are highlighted in gray, used for synthesis of ITS2 PCR product for Northern analysis and RNase protection.

**LSU 5' 88 T7 AS (+10)**, 5'-TTAATACGACTCACTATAGGGAGAACAAACAAA

TCCCTCTTCGCTCGCCGC-3' antisense, specific to *T. brucei* SSU rRNA, from position 88-107, carrying T7 promoter sequence (underlined); unpaired nucleotides are highlighted in gray, used for synthesis of ITS2 PCR product for Northern analysis and RNase protection.

**Sr1 sense (160) (+10)**, 5'-AGTTCTAACTAAAATGCAGCTCACCTACG-3', sense, specific to *T. brucei* srRNA1, from position 161-179; unpaired nucleotides are highlighted in gray, used for synthesis of ITS4 PCR product for Northern analysis and RNase protection.

**LSUB AS T7 1-20 (+5)**, 5'-TTAATACGACTCACTATAGGGAGAACTACAGTACGGTCTGCAGTTGGG-3', antisense, specific to *T. brucei* LSU 3' rRNA, from position 1-19, carrying T7 promoter sequence (underlined); unpaired nucleotides are highlighted in gray, used for synthesis of ITS4 PCR product for Northern analysis and RNase protection.

**LSUB 3'-80 sense (+10nt)**, 5'-TCATTAGACCGTTTAGACCGTCGTGAGACAG-3', sense, specific to *T. brucei* LSU 3' rRNA, from position 1406-1426; unpaired nucleotides are highlighted in gray, used for synthesis of ITS5 PCR product for Northern analysis and RNase protection.

**ITS5 120 AS T7(+9nt)**, 5'-TTAATACGACTCACTATAGGGAGAACCACCACC

ACGTGTGTATAACAGCATT -3', antisense, specific to *T. brucei* ITS5 rRNA, from position 102-120, carrying T7 promoter sequence (underlined); unpaired nucleotides are highlighted in gray, used for synthesis of ITS5 PCR product for RNase protection.

**Sr2 sense 3`-60 (+10nt)**, 5'- GGCTAGGTTTACGGTGGTTCTCGGCTGA -3', sense, specific to *T. brucei* srRNA2 from position 124-141, unpaired nucleotides are highlighted in gray, used for synthesis of ITS6 PCR product for RNase protection.

**ITS6 T7 AS 5`+ 140 (+6nt)**, 5'- TTAATACGACTCACTATAGGGAGAGAAATTCAACGTCAATGAGCCATAT -3', anti sense, specific to *T. brucei* ITS6 rRNA, from position 122-140, carrying T7 promoter sequence (underlined), unpaired nucleotides are highlighted in gray, used for synthesis of ITS6 PCR product for RNase protection.

**Sr6 sense 3`-49 (+10nt)**, 5'- TCTTTCAACAGGCTCTGCCCGCCCTTG-3', sense, specific to *T. brucei* srRNA6, from position 31-46, unpaired nucleotides are highlighted in gray, used for synthesis of ITS7 PCR product for RNase protection.

**ITS7 T7 AS 5`+ 189 (+6nt)**, 5'- TTAATACGACTCACTATAGGGAGATATCTGTAGTACCACACAGTGTGA-3', anti sense, specific to *T. brucei* ITS7 rRNA, from position 172-189, carrying T7 promoter sequence (underlined), unpaired nucleotides are highlighted in gray, used for synthesis of ITS7 PCR product for RNase protection.

**TBsRNA-3**, 5'-TGCCGAATGGCTGTGGG-3', sense, specific to sequence 14-30 and 5'-TTAATACGACTCACTATAGGGAGAATTACACACACTCGCTC-3', antisense, complementary to sequence 57-73 of TBsRNA-3, carrying T7 promoter sequence (underlined), used for synthesis of TBsRNA-3 PCR product for RNA probe.

**TBsRNA-4**, 5'-TGAAGACGGCGTTATTG-3', sense, specific to sequence 26-41 and 5'-TTAATACGACTCACTATAGGGAGATATCTTTTGGTGAGGCA-3', antisense, complementary to sequence 106-118 of TBsRNA-4, carrying T7 promoter sequence (underlined), used for synthesis of TBsRNA-4 PCR product for RNA probe.

**TBsRNA-10**, 5'-GCGGGCGCAAGGATTTTC-3', sense, specific to sequence 1-17 and 5'-TTAATACGACTCACTATAGGGAGAAAGGGCGATTGCGGCTT-3', antisense, complementary to sequence 136-153 of TBsRNA-10, carrying T7 promoter sequence (underlined), used for synthesis of TBsRNA-10 PCR product for RNA probe.

**TB10Cs3C1/H1**, 5'-TCGCGTGATGAGGTGCA-3', sense, specific to sequence 1-17 and 5'-TTAATACGACTCACTATAGGGAGACCTCTCGCACGTGCTTC-3', antisense, complementary to sequence 174-190 of TB10Cs3C1/H1, carrying T7 promoter sequence (underlined), used for synthesis of TB10Cs3C1/H1 PCR product for RNA probe.

**TB11Cs2H1 (SLA1)**, 5'-CATGACCATACCCCATATATAC-3', sense, specific to positions -30 to -19 relative to Tb11Cs2H1 (SLA1) and 5'-TTAATACGACTCACTATAGGGAGAGAGTCTCGCTCTCCAGTTTC-3', antisense, carrying T7 promoter sequence (underlined), complementary to position 52-71 of SLA1, used for synthesis of SLA1 PCR product for RNA probe.

**U3**, 5`AAG ACC GTA CTC TGA ACA GAA TCG-3', sense, specific to positions 1-24 of U3 and 5'-TTAATACGACTCACTATAGGGAGAATCCTTCTGGAACCGGCTC-3', antisense, carrying T7 promoter sequence (underlined), complementary to position 124-142 of U3, used for synthesis of U3 PCR product for RNA probe.

**SL RNA**: 5'-AACTAACGCTATTATTA-3', sense, complementary to positions 1–17 of SL RNA and 5'-TTAATACGACTCACTATAGGGAGAAAAAAATAAAAAAATA-3', antisense, complementary to positions 143–161 of SL RNA, used for PCR amplification of the 161-bp fragment for in situ hybridization.

**U2 snRNA**: 5'-ATATCTTCTCGGCTATTTAG-3', sense, complementary to positions 112–131 of U2 snRNA, and 5'-TTAATACGACTCACTATAGGGAGAACCGTCGCGCTCCGTCCGGA-3', antisense, complementary to positions 240–259 of U2 snRNA used for PCR amplification of the 148-bp fragment for in situ hybridization.

## **Oligonucleotides for primer extension and northern analysis**

**AS TB6Cs1C1**, 5'- CAGTAAATCCTTGTATGAAG-3', antisense, complementary to *T.brucei* TB6Cs1C1 snoRNA from position 71-90.

**AS TB6Cs1C3**, 5'- TCCCGTGCTTATGATAGGTA -3', antisense, complementary to *T.brucei* TB6Cs1C3 snoRNA from position 65-84.

**AS TB9Cs2C1**, 5'- GTTGTGCGGCGCCCCAGAAA -3', antisense, complementary to *T.brucei* TB9Cs2C1 snoRNA from position 77-96, used for primer extension and Northern analysis.

**AS TB9Cs3C3**, 5'- AGACATAGCGCCTCTGTGCA -3', antisense, complementary to *T.brucei* TB9Cs3C3 snoRNA from position 101-120.

**AS TB10Cs4C4**, 5'-AGTCAAATACAGCACTCTCG-3', antisense, complementary to *T.brucei* TB10Cs4C4 snoRNA from position 72-91.

**AS TB9Cs5C1**, 5'-TTAGTGAAGCGTGTGTAAGT-3', antisense, complementary to *T.brucei* TB9Cs5C1 from position 56-75.

**AS TB11Cs2C2**, 5'-CAGGGCATAAAATAGTAC-3', antisense, complementary to *T.brucei* TB11Cs2C2 from position 66-83.

**AS TBsRNA-4**, 5'-TATCTTTGGTGAGGCAG-3', antisense, complementary to *T.brucei* TB11sRNA-4 from position 105-121.

**tRNA control** : 5'-GCTCCCGCTAATTGAGTG-3'

**U2 AS** : 5'-GAACAGTTTAATAAC-3', antisense, complementary to positions 31–45 of U2 snRNA.

**AS TB5Cs1C1**, 5'-TGTTTTCAATCGCAGGGTCC-3', antisense, complementary to snoRNA TB5Cs1C1, from position 38 to 57.

**U3 AS**, 5'- TGCCGTTTCATCGAAC -3', antisense, complementary to *T.brucei* U3 snoRNA from position 107-121.

**TB10Cs3C1H1\_Probe 1**, 5'-CCTCTCGCACGTGCTTC-3', antisense, complementary to *T.brucei* TB10Cs3C1H1 from position 174-190.

**TB10Cs3C1H1\_probe 2**, 5'-CATCAGAGATTGTTTAC-3', antisense, complementary to *T.brucei* TB10Cs3C1H1 from position 96-112.

**TB9Cs2C1\_Probe1'**,5'- GGAATGTTGTGCGGCGC -3' antisense, complementary to *T.brucei* TB9Cs2C1 from position 85-101.

**TB9Cs2C1\_Probe2'**, 5'-GCCTCGGACGCAGGACG-3', antisense, complementary to *T.brucei* TB9Cs2C1 from position 111-127.

**TB6Cs1C2\_Probe 1**, 5'-ACGTCGACGCGTACACC-3', antisense, complementary to *T.brucei* TB6Cs1C3 from position 77-93.

**TB6Cs1C2\_Probe 3**, 5'-TAACAACATCATTGGCG-3', antisense, complementary to *T.brucei* TB6Cs1C3 from position 17-33.

**TB6Cs1C3\_Probe 2**, 5'-CACCTCAGCGTTTCCTC-3', antisense, complementary to *T.brucei* TB6Cs1C3 from position 65-81.

**TB1Cs1H1**, 5'-CGCTCTCGGGTACCTTAA-3', antisense, complementary to *T.brucei* TB1Cs1H1 from position 51-68.

**TB1Cs2H1**, 5'-TGATCTCACTAGCTCATC-3', antisense, complementary to *T.brucei* TB1Cs2H1 from position 52-69.

**TB7Cs3H1**, 5'-CCTTCTCCGACGATTTA-3', antisense, complementary to *T.brucei* TB7Cs3H1 from position 57-73.

**TB11Cs6H1**, 5'-ATATCTCTCTCACATGA-3', antisense, complementary to *T.brucei* TB11Cs6H1 from position 50-66.

**TB11Cs1'H1**, 5'-GAATTCTCGTGGCCTTT-3', antisense, complementary to *T.brucei* TB11Cs1'H1 from position 56-72.

**TB3Cs3C1**, 5'-AATCAGAGTTGTGTTAA-3', antisense, complementary to *T.brucei* Tb3Cs3C1 from position 64-80.

**TB7Cs2C1**, 5'-TCAGAACACACGTATTG-3', antisense, complementary to *T.brucei* Tb7Cs2C1 from position 52-68.

**Tb11Cs4'C1**, 5'-AACGGTTATTCCATCAC-3', antisense, complementary to *T.brucei* Tb11Cs4'C1 from position 54-70.

### **Oligonucleotides for the silencing constructs:**

**T7 TB10Cs4C4 S XhoI**, 5'- CCGCTCGAGGGGCTGTGTATGAGGACAGAA -3', sense, complementary TB10Cs4C4 from position (-4) to (+16) relative to the +1 position of the gene, including the XhoI site (underlined), used for PCR amplification of the 150 bp fragment for cloning into the pZJM vector.

**T7 TB10Cs4C4 AS HindIII**, 5'- CCCAAGCTTAATAGAAGGTAACACTGAAG -3', antisense, complementary TB10Cs4C4 from position (+132) to (+151) relative to the +1 position of the gene, including the Hind III site (underlined), used for PCR amplification of the 150 bp fragment for cloning into the pZJM vector.

**T7 TB9Cs2C1 S XhoI**, 5'- CCGCTCGAGTTGTACTTTGCCCATGACGA -3', sense, complementary TB9Cs2C1 from position (-9) to (+11) relative to the +1 position of the gene,



including the XhoI site (underlined), used for PCR amplification of the 157 bp fragment for cloning into the pZJM vector.

**T7 TB9Cs2C1 AS HindIII**, 5`- CCCAAGCTTAAGGTGAGAAAGTTACCGTA -3, antisense, complementary TB9Cs2C1 from position (+118) to (+137) relative to the +1 position of the gene, including the Hind III site (underlined), used for PCR amplification of the 157 bp fragment for cloning into the pZJM vector.

**T7 TB6Cs1C3 S XhoI**, 5`- CCGCTCGAGTGGTTTGTGTGTGTGTGTAT -3`, sense, complementary TB6Cs1C3 from position (-42) to (-22) relative to the +1 position of the gene, including the XhoI site (underlined), used for PCR amplification of the 152 bp fragment for cloning into the pZJM vector.

**T7 TB6Cs1C3 AS HindIII**, 5`- CCCAAGCTTTGCAAAGAAAGGGGGAAGAT -3`, antisense, complementary TB6Cs1C3 from position (+90) to (+109) relative to the +1 position of the gene, including the Hind III site (underlined), used for PCR amplification of the 152 bp fragment for cloning into the pZJM vector.

### **Oligonucleotides for Northern Analysis:**

**7SL: Tb927.8.2861**

**7SL sense:** 5'- CCGCTCGAGAGCCGGAGCGCATTGCTCTG-3` from position 1-21.

**7SL antisense:** 5'- CCCAAGCTTCCGCCTCGCGACGACACTTG-3` from position 255-274.

### **Oligonucleotides for the “RNA walk”:**

**5681S:** 5`- ACTTGCAGACCGTACTCATCA-3`, sense, complementary to positions 5-25 of LSU $\beta$  rRNA.

**LCLSU $\beta$ 560AS:** 5`- CATGCGCGTCTCTAATTG-3`, antisense, complementary to positions 538-558 of LSU $\beta$  rRNA.

**6393S:** 5'- GTAGTATAGGTGGAAGCGC-3', sense, complementary to positions 699-717 of LSU $\beta$  rRNA

**LCLSU $\beta$ 1090AS:** 5'- CACTGAGCTCGCCTTAGG-3', antisense, complementary to positions 1079-1096 of LSU $\beta$  rRNA.

**LSU $\beta$ 1088S:** 5'- GCTCAGTGGGAACAGAAA-3', sense, complementary to positions 1089-1106 of LSU $\beta$  rRNA.

**LCLSU $\beta$ 1450AS:** 5'- CTTTGCACGGATAATCTT-3', antisense, complementary to positions 1447-1466 of LSU $\beta$  rRNA.

**3373S:** 5'- GAGTGTGGCAGGACCACCCG-3', sense, complementary to positions 9-28 of LSU $\alpha$  rRNA.

**LCLSU500AS:** 5'- GAAATGGAGGTACTTCC-3', antisense, complementary to positions 494-510 of LSU $\alpha$  rRNA.

**4353S:** 5'- GTAGCGATGCTGACGTGCAA-3', sense, complementary to positions 979-998 of LSU $\alpha$  rRNA.

**LCLSU1580AS:** 5'- GGGCCGGTGGATTCGGTT-3', antisense, complementary to positions 1417-1434 of LSU $\alpha$  rRNA.

**LCM21S:** 5'- GTGAGATTGTGAAGGGAT-3', sense, complementary to positions 1-18 of SR2 rRNA.

**LCM2-120SRLAS:** 5'- CGAGAACCACCGTGCGAT-3', complementary to positions 119-137 of SR2 rRNA.

**RR171:** 5'-GAGTGTGGCAGGACCACCCG-3',Sense, complementary to positions 1-21 of LSU5' rRNA.

**RR176:** 5'- TCCCTTGCGCGTCTGTTT-3',Antisense, complementary to positions 925-942 of LSU5' rRNA.

**RR291:** 5'- AATCTCCAGCCAAGTAGGGT -3',Antisense, complementary to positions 1375-1393 of LSU 3' rRNA.

**RR293:** 5`- GTAGTATAGGTGGAAGCGCA -3`, Sense, complementary to positions 718-737 of LSU 3` rRNA.

**RR364:** 5`-GGCTAGGTTTACGGTGGTTCTCGGCTGA-3`, Sense, complementary to positions 124-141 of srRNA2. Nucleotides highlighted in gray are unpaired nucleotide to make use of this oligo for RNase protection also.

**RR382:** 5`- CACAAGCCGTGCCACACACT -3`, Antisense, complementary to positions 90-111 of ITS6 rRNA.

**RR391:** 5`- TCTCGAATCGCCACTTCTCT -3`, Sense, complementary to positions 1-20 of srRNA6.

**RR392:** 5`- GAAAATGAAGGTACTGGGCG -3`, Antisense, complementary to positions 51-70 of srRNA6.

**RR292:** 5`- ACTGCAGACCGTACTCATCA -3`, Sense, complementary to positions 5-24 of LSU 3` rRNA.

**RR300:** 5`- GGCAGAAATCAGTTTGCG -3`, Antisense, complementary to positions 385-403 of LSU 3` rRNA.

**ITS4 Sense1-20:** 5`- TATGGAAAATGAAAACAAAA -3`, Sense, complementary to positions 1-20 of ITS4 rRNA.

**RR281:** 5`- TATAATATATGATTTTTGTTTTTC-3`, Antisense, complementary to positions 41-62 of ITS4 rRNA.

**ITS5 Sense1-20:** 5`- GGCAGTCCGTTTTTTTCTGG -3`, Sense, complementary to positions 1-20 of ITS5 rRNA.

**RR353:** 5`- TACACGTGTGTATAACAGC -3`, Antisense, complementary to positions 118-136 of ITS5 rRNA.

**ITS6 Sense1-20:** 5`-AAAAGCAAAAAGCAAAAAGA -3`, Sense, complementary to positions 1-20 of ITS6 rRNA.

**RR383:** 5`- TTAATACGACT CACTATAGGGAGAGAAATTCAACGTCAATGAGCCATAT -3`, Antisense, complementary to positions 122-140 of UTS6 rRNA. Underlined nucleotides are

T7 sequence and gray marked are extra nucleotides to use the same oligo for RNase protection also.

**ITS7 Sense1-20:** 5`- TGTTTTGAACGCGTTGAACA -3`, Sense, complementary to positions 1-20 of ITS7 rRNA.

**RR411:** 5`- GG TTCACAGAGTTGGTGGC -3`, Antisense, complementary to positions 294-314 of ITS7 rRNA.

**RR134:** 5`- GGCTTCCTATTTTCGTTGA-3`, Sense, complementary to positions 22-40 of 5.8S rRNA.

**RR133:** 5`- ATCGCACTTTGCTGCGTTCT -3`, Antisense, complementary to positions 41-60 of 5.8S rRNA.

**RR131:** 5`- ATTCGACACTGAGAAATGTGGC -3`, Antisense, complementary to positions 151-172 of 5.8S rRNA.

**RR172:** 5`- GTAGCGATGCTGACGTGCAA -3`, Sense, complementary to positions 978-997 of LSU5` rRNA.

**RR177:** 5`- GGCTTAAGCGTCATCCATTT -3`, Antisense, complementary to positions 1605-1624 of LSU5` rRNA.

**RR178:** 5`- ACCAGCTATCCTGAGGGAAA -3`, Antisense, complementary to positions 1238-1257 of LSU5` rRNA.

### **Biotinylated Oligonucleotides for the affinity:**

**Biotin Anti TBsRNA-4:** 5'-biotin/ CCGCCATCTGCTATCTAAGTGC -3', anti sense, complementary to TBsRNA-4 from position 48-67. Used for affinity purification of TBsRNA-4 cross-linked species. Unpaired nucleotides are highlighted in yellow.

**Biotin Anti TB9Cs2C1:** 5'-biotin/ CCCCATGTTTCGGGTGTGTGTCA -3', anti sense, complementary to TB9Cs2C1 from position 34-53. Used for affinity purification of TB9Cs2C1 cross-linked species. Unpaired nucleotides are highlighted in yellow.

**Biotin Anti TB6Cs1C3:** 5'-biotin/ CCCTTATGATAGGTAGCTTAGT -3', anti sense, complementary to TB6Cs1C3 from position 48-67. Used for affinity purification of TB6Cs1C3 cross-linked species. Unpaired nucleotides are highlighted in yellow.

**Biotin Anti TB10Cs4C4:** 5'-biotin/ CCTCAGTCAAGTACAGCACTCT -3', anti sense, complementary to TB10Cs4C4 from position 74-93. Used for affinity purification of TB10Cs4C4 cross-linked species. Unpaired nucleotides are highlighted in yellow.

## S-2

	Total number of known	Run 1			Run 2		
		Found in deep sequencing	Percentage found	Number of loci	Found in deep sequencing	Percentage found	Number of loci
<b>C/D snoRNA</b>	69	62	90%	232	62	90%	246
<b>H/ACA snoRNA</b>	48	42	88%	148	42	88%	147
<b>tRNA</b>	66	66	100%	70	66	100%	76
<b>rRNA</b>	106	106	100%	132	106	100%	171
<b>siRNA</b>	NWA	NWA	NWA	1217	NWA	NWA	5794
<b>abundant sRNA</b>	10	10	100%	39	10	100%	39

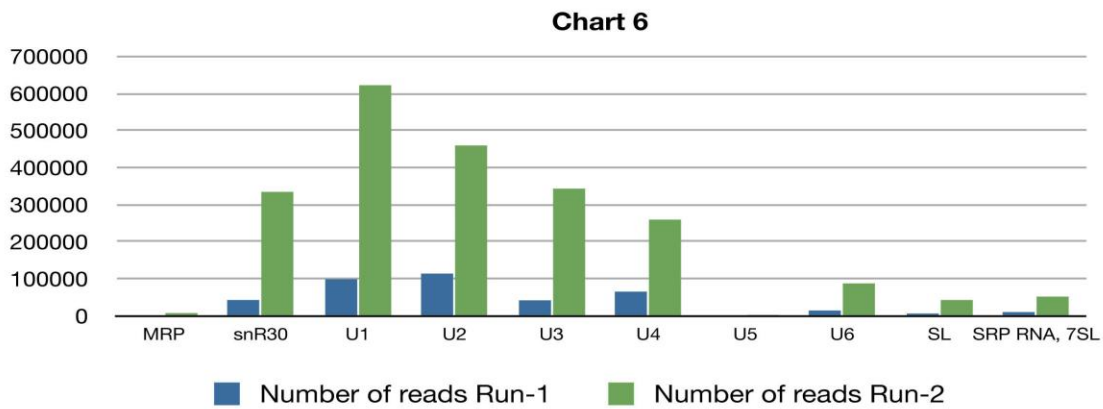
Abundant sRNA (UsnRNA, MRP, SLRNA, 7SL, snR30)

### **S-2. Summary of published RNAs identified in both runs.**

Comparison between the results obtained in the first and second run of the RNA seq, demonstrating the number of loci detected for each group of RNAs and the extent to which these cover the known groups of small RNAs.

### S-3

	Length (nt)	Number of repeats	Number of reads Run-1	Number of reads Run-2
<b>MRP</b>	533	2	950	7659
<b>snR30</b>	169/270	2	42843	334518
<b>U1</b>	84	1	98734	621994
<b>U2</b>	373	1	114079	459460
<b>U3</b>	147	1	41933	343143
<b>U4</b>	114	1	65418	259669
<b>U5</b>	76	1	1023	2403
<b>U6</b>	99	1	14507	87467
<b>SLRNA</b>	128	28	6442	42935
<b>SRP RNA, 7SL</b>	261	1	10435	51861



**S-3.Comparison of the number of reads in both runs of abundant sRNAs.** The number of reads obtained in each of the runs for the U snRNAs, 7SL (SRP) RNA and SL RNA is given.

### S-4: The sequence, and the number of reads of each snoRNA.

Cluster	snoRNA	Status	length (bps)	# of genomic repeats	max num reads I	max num reads II	Sequence
TB1Cs	TB1Cs1H1	DS	82	2	507	2929	GAAGGGCGCGTTGAGTGGGAAGCCATGCCGAATTT AGTGCAGAGCCATCCTAATTAAGGTACCCGAGAGC GCGGTGAGTTGTG
	TB1Cs2H1	DS	64	4	503	5933	TTGGGGTCCCTGTCTGTCTTACGTGACTATGTAT GAACCGTCACGTGTAAGATGAGCTAGTGA
TB2Cs1	TB2Cs1C1	Doniger et al. 2010	200	1	0	0	TCTGCATTGGAACGTATGGCATCATGGCGGATTGG GTGTATCGCGGTTATGTGGATTTGTGGTATGGCGT GTAT
TB3Cs1	TB3Cs1C-1	Barth et al. 2008	84	3	395	3448	TGATGTGAATCTATCTGTGCAAATGACACCTCTAG TCTGAAACACAACATGACGCGAGCACAAATACAAG TTATCCCTGGCTGA CTGATGACTATAACGTTTCACTCTTGTCTAGGAA ATGTCTTGACGAAACTTATACTTCGTTTGATTCTG A
	TB3Cs1C1	Liang et al. 2005	71	3	97	668	A
TB3Cs2	TB3Cs2C1	Liang et al. 2005	119	2	0	0	GTGACGAATTTGAAGCCTCCGAGTCCGAAAGAAG GATCCTGACACTGAGGATCAGAAAGATAACCGAGTC GGAGCGGTCCCGCTCATCATCGAAGAAGCCTGAGG A
TB3Cs2'	TB3Cs2'H1	Myslyuk et al. 2008	150	1	52	1066	TAATGAGGGTCTAAGAGCTGGGGACCGAACCTTT CCATGTTCTTCCAGTGTCAATGCCCTCAGAGA GCAGCAGAGATGTTTGAGGGGCTTTGCTGCCACGA AGTGTGGCCACAATAGCAAATACTGCGCCATAGGT ACTCTGCAAGAAAT
	TB3Cs2'H2	Myslyuk et al. 2008	85	1	144	632	



T B 3 C s	TB3Cs3C1	DS	80	1	112	2031	TATGATGTCCAAATGCCAAATTTTACGCATCTATT TTTCTGATGTGAAACGATGAATCAAAGCTTAACAC AACTCTGATT
T B 5 C s	TB5Cs1C1	Liang et al. 2005	87	3	1908	9325	GTGATGAATTTTAAAGCTTAGGACACCTTTGGACGC AGGGACCCTGCGATTGAAAACAGTGAAAACCTTGATC GATTCGTACACTGATTT
T B 5 C s	TB5Cs2H1	DS	105	1	165	1345	AAGAGCTGCATTTTCGCCGAGAGTGAACAAAAAAAA ACCAGTGTTTTCGCTCGTATAGAGCAGCTCCAGAT TAAGTGAAGTGCGCGCCGTTATGGGTTTCATTTGGG
T B 6 C s	TB6Cs1C1	Liang et al. 2005	93	5	6	1296 1101 58	AGCATGATGATCATACTGCAATTCCTGTGGTATC TGAAAAATGCAATGACAGAAGAAGCTGCGACGATGC CTTCATACAAGGATTTACTGACT
	TB6Cs1H1	Liang et al. 2005	68	3	93	861	GGCTAGCGAAAAACAGGGCGTTTTGCTTACGTCAA TCACTGCGTCTGCACCTGTGCTACCCGAGAGTT CGAGCCCCGTGGGTGAGGCGGCGGCTAACTCTT TGGTGTGTGACGGCTCAATCGGACCCGCGAGAG CT
	TB6Cs1H2	Liang et al. 2005	72	5	2033	9575	CCAATGATGTTGTTATTTAATTATACACCTGATCA TGTTGTTGATGAGAGGAAACGCTGAGGTTG GTACCGCGGGTTGCACCGTTGCGGGACACGCTGAT TGTCATGTGACGGACTTGCTGTGGAAGAGTG ACACCTCATTATTAAGGTCCCTTGGCGACTGTAC TTATCGATGCCGCTCCACAGGATACCCATTGAGGT TAGATGC
	TB6Cs1C2	Liang et al. 2005	64	5	317	2417	GATGATGCTAACAATCGAGGCATTTGTATGATTTT CAAATGAATTAGGCATCCGTGCACTAAGCTACCTA TCATAAGCACGGGACTGAT
	TB6Cs1H3	Liang et al. 2005	68	6	336	1973	
	TB6Cs1H4	Liang et al. 2005	77	6	223	2216 7514 1	
	TB6Cs1C3	Liang et al. 2005	89	6	7837	1	
T B 6 C s	TB6Cs2C1	Liang et al. 2005	90	1	2	0	CGCTGATGAATTAATTTTTCTGAGTGTTTTCTTAG AGTTCCGTAACGGGCATGATAAGCACACAAATTAT GAACCCTTAACTCTGAGAG GAAACACAGAAATCGTGATCCCTATTGATACACGT TTTTTCAGCTGCGGATTATCAAAACTGTGTGAGATG A
	TB6Cs2H1	Liang et al. 2005	71	1	115	2223	AATGTTGATGAGAGGAACTTGTAAGTTTGTATTCTT TCCTGAGGTAGTGTGTATTACGAAAAATTAACCTTGT GAGAAAGCATTCAAATGTTGTTTTGAAGG
	TB6Cs2C2	Liang et al. 2005	99	1	0	0	

T B 7 C s 1	TB7Cs1C1	Barth et al. 2008	87	1	0	0	TACGGTGATGAAAATACATGTATATGCTAACTTTT CTGTACTCCATGGAGTGAGCATGAAGTGAATTATC CGCAGAGAAGTCTGAAA
T B 7 C s 1 p	TB7Cs1'H1	DS	75	1	26	293	TCACGAATGGGTAGTCAGCTGCAGTCCGGCTTCAC AAGTCATAGGCCACCGTGGCGTTACCCCATTCGAA GAGCC
T B 7 C s 2	TB7Cs2C1	DS	68	1	130	1096	AACATACTTTTTTCCTAACAAAACGCCTGAATGTG TTGAATGATGCACAACCAATACGTGTGTTCTGA
T B 7 C s 3	TB7Cs3H1	DS	74	2	58	470	AACGACGAAGCTTACCGCGTGGGGTTCATTAAACT AGTGAACAGCGCACGTAGAATAAAATCGTCGGAGAA GGG
T B 8 C s 1	TB8Cs1C1	Liang et al. 2005	83	6	4902	2610 0	GTGTGTGATGTATATACGACTATGAACAACCTCGTC AGAGTGCTATCTTTGATGATCACATACATTTTGCT TCCTCACTGACAA
	TB8Cs1C2	Liang et al. 2005	74	5.5	468	3604	CACGGTGATGTTCAATACAATAACTGATGTAATGA GACCTAGTGGAATACTGCGGACACTTCTTGTTCTG AGCG
	TB8Cs1C3	Liang et al. 2005	118	5	2622	1933 1	ACACATGATGAGCAGCAAAGAAAGGGAATCTCTTG TCGAGCTCAGGGAATGAATCCCAGTGGCGGTGACA TGACAACTTTGATATTACTATAATCCATTCTATT CTGTTACTGATGC
	TB8Cs1C4	Liang et al. 2005	78	6	2419	2415 6	TCCCTTGATGATTGTGGCAACTCTCCACGGAACTT ATCTGACAAAATTTGCCTACGAACCTATTACCAAG GCTGAGGT
T B 8 C s 2	TB8Cs2C0	Liang et al. 2005	96	1	235	1160	GCGCGTGATGAATAAATAACAAACGACCAATAATCG GAAGCGTCAGTAACACCTCACGCATGACGCCACTT TGAATGCAATACTAATTATCTGACTC
	TB8Cs2H1	Liang et al. 2005	67	5	145	280	ACACCTCCGCTTCGCTCGTGGCATTCTTCCAGTGA GCGCACTTACGATGGATGGTGGAGGAAGAATA TACCTCGATGATGTGTATGAGAACAAGCATATGTC CGAGCTGACCACAATTGTGGCACAATGAGAGCATT ACTCGAGTCCTTGAAAAGCTGAGTG
	TB8Cs2C1	Liang et al. 2005	94	3	776	5838	GCAAAGCAAATAAACAGCGGGGGAAACCTCGTCTC AAAATGTGATTTTGCCTGAACGAGCGTTTTCAAGC GTCATCCACTGACTC
	TB8Cs2C2	DS	85	3	722	5533	

T B 8 C s	3	TB8Cs3C1	Liang et al. 2005	83	3	27	729	GCCAGTGATTATACGTAATGTCTTTGCTACAGGTG ATTGTACGATATGACCATAACCGACTAAACCAACCG AGATCAATGAGGC
		TB8Cs3C2	Liang et al. 2005	87	3	478	3055	CGGTGTGATTACAGACAGGATGTAAGTGAGTCAAT GTCAATATCTCCGTATTACACCATGAGGACTATTG TCCCCGTGTCTGACCG
		TB8Cs3C3	Liang et al. 2005	81	3	463	2964	ACACATGATGTCATTTCTGATTCTGCAATACTGAC AATAACTTGAGCGAGACAAGACATATTTGACTACT GGCAACTGAAAC
		TB8Cs3H-1	DS	67	6	151	493	CACGAGGCTCAAAAAGAACACACTGAGCGTGTACCA ATGCCCAGTGAGTGGGACAGCCATCGAAGATAA CAATGAGGTTTCAATGCGCCTGACGGTTTTTGTCC
	TB8Cs3H1	Liang et al. 2005	65	5	561	5316	GACGTGGTGTGGGAAACGCTCAAAGAAGT	
T B 8 C s	4	TB8Cs4C1	Myslyuk et al. 2008	90	1	13	0	TGATGAGAGAAAAGAGGGAAGGGAATGACCATCGGA TTAATGAAAACATTTTCATAGCACATGTGGAGCGGT GTAAATCCTTCTGTTTCTGA
		TB8Cs4H1	Myslyuk et al. 2008	70	1	0	0	CATCTGTGGGCTCACCCGGGTGATTAATGCACTT TAAAAGTGGGGAACGTGACACCCAAAGGGAGAAGG AAACGAGGGACATCGTCGGGGGCTCTGATTCAACT
		TB8Cs4H2	Myslyuk et al. 2008	73	1	427	3158	TCTGTGGGGCCAAACCGAAACAACACCTTCGAAGA TAT
		TB8Cs5H1	DS	68	1	114	1090	ATCCCAATGATTTGCCGCCATTGATCGACAGAAAT GCTCAGCCAGGCGTACTCAGTTGGGGGAGATGT
T B 8 C s	6	TB8Cs6H1	DS	68	1	388	1330	AATGACCGTTTCGTGCCTTCACTACCTCGATGTGC AGTGGTAGATGGAAGTCAGATAGCGGCCAGAGA
	1	TB9Cs1H1	Liang et al. 2005	68	2	220	1662	ACAGCACAGAAAATGAAGCTAGTTATGGCGTACCG CTGCTGCTCTAGTGCCGACACTGTGCGAGATGC ACACGGGGCAATCCGAGGTCAGTGAGCTTCACTTC GTGCCGATGATGCCTTCTGGTGGCTCCGGAGAAG C
	TB9Cs1H2	Liang et al. 2005	71	2	88	0	CTTCGTGATGATCCCGGAACTGAGTGTACCTTTT TTCAGCACTTTTCGTGCAATGGAATGTAATGGCACC GTGCCCTCTTGTGGGTGTACTIONGATA	
	TB9Cs1C1	Liang et al. 2005	98	2	707	7322	AGAACGCGCTATTAGCTCCCAACGGGTATGACTGC TTCCACTTGGGTTTCTGAGGCGTGTGAGAGTG	
	TB9Cs1H3	Liang et al. 2005	67	2	297	1304		

T B 9 C s 1	' TB9Cs1'H1	Doniger et al. 2009	70	2	539	2770	GCAGTACCGTGTTACCCTACCGACTACTTTGATAT GTTGGATGATTTGGGTGTCAAAGGGCTGCAAGAT
T B 9 C s 1	" TB9Cs1"H1	DS	80	1	99	981	CCTTCCGCCTTTGTAGCCCACTGCTGTGCGAGTTG TGCCGCACTTTTGGCCGGATACGGTGTGGCTCCG GTGAGAAGACA
T B 9 C s 2	TB9Cs2C1	Liang et al. 2005	107	6	2005 3	8367 5	GCCCATGACGATAAAACCACTTACGACGGTCTTATG ACACACACCCGAACATGGATTGAGCACGAGTGTTA CGATAGTTTCTGGGGCGCCGCACAACATTCCCAGAG GC
	TB9Cs2C2	Liang et al. 2005	87	7	696	5143	GTCAATGATGAGTCTGTCAAATCCGTGTTTTAGCT GAATTTATTTGATGCTGACATCAGTTAATTTTGTG TGTTTACTTCTGAGTA
	TB9Cs2C3	Liang et al. 2005	97	7	1026 6	7219 7	GTGGCCGATGATGGAACTAGTTGAGCGTCCAAAC ATGTTCCGACGTCATATTCATGAGGGATCTATAACA ACACAAATCACCTTTCGGGTCTGATGG
	TB9Cs2C4	Liang et al. 2005	76	7	780	5822	GGGTGACGATGTACAATATGTTCAAATTGCACCGA GAACCTGTGAGGACACCATAACACAGACCTGCACT GAACCT
	TB9Cs2C5	Liang et al. 2005	96	7	9903	9614 1	GCCACTGATGAAAGAGCTTCCGATACCGCGTAGGC GGAACGGAAACACACTATGTCGATGCAACTGTGAA CTCTATCTTTCGCTCCGAGCTGACGT
	TB9Cs2C6	Liang et al. 2005	79	7	1113	9794	GCGTGTGATGAATACCTAATAACAAATTAACAG CAACATCTGAACAGAACCCGTGACGCTAATATTGT TTCTGACGC
	TB9Cs2H1	Liang et al. 2005	75	8	136	1701	AAGGCCACATTGGAGTTGTGTCTTGGGCTAACAT TTCTGTGTCCTTGTTTGCACACTCACGTGGTCCGA GAATT
	TB9Cs2H2	Liang et al. 2005	73	8	1164	7688	AAAGGGGCTTTAGCCATGGAGCGGCCGTTTTGTGA TTGCATGCCGTAGGCCATCTTGGTGCCTCCGAGA GTT
	TB9Cs2C7	Liang et al. 2005	91	8	1876	1281 5	CTACTTGATGACATCAATGGACTGGAGTCTCTGAG TGTATTTGAATGACAATAACCCATTTAAAGAATAT TCTTCTTTCCCCGGCTGATGG
T B 9 C s 3	TB9Cs3C1	Liang et al. 2005	87	4	45	481	ATTACTTGATGTATAACACGATATTCAGGTAAAGA TTATCAGGAGTAACTGACTGAGATAACATCATGCA CCACTCTGACCA
	TB9Cs3C2	Liang et al. 2005	125	3	1735	5540	CTCCATGATGCCATGACAAGACTATAAGAGCACAG TTTGAACCTGACTTCACAAGACGGACGAGAACGTCG CTGCAATATTCTGATGA
	TB9Cs3H1	Liang et al. 2005	67	3	916	3198	GAAGCACAATTTACACGGATTACCCCTGACTTATA TTTTAATGCCGGTGTATCCGCCAGTGTGTGCCA GATAT

T B 9 C s	TB9Cs3C3	Liang et al. 2005	81	3	4417	3544	5	4417	CTCTATGATGTTAAAAGAAGTTTTGTAGTAGGGTA AAATCTGACATCCGACCATGAAGGTACGAATTTAA TGTGCTTTCATGTGCTTCTGCTATTGTGGTTGCAC
	TB9Cs3H2	Liang et al. 2005	75	3	4663	4371	6	4663	AGAGGCGCTATGTCTGAGAA CGAGTGCCTCAGGTATTGTGGTGTGTTGTTGCTTA TCGCCATCACAGGTTCAAGAGGCACAAGAAGT
T B 9 C s	TB9Cs4H1	Liang et al. 2005	66	5	312	2856	5	312	TAAGGTTGCCTGTGTACCTCATGCGTCTCTTTGTG GTGTTGTGGGGAATGAAGGCGACCGAGATAC GATCGTGATGATATTAACCCTGCTCCGCTACTGAG
	TB9Cs4C1	Liang et al. 2005	75	6	1421	1007	5	1421	TGTTGAAGCATGAAACGATATCCTTCAGGGCTACT GATGC GTAGGCCCGCCAGCTACCACGTGGAGTGATACTC TCTATCTCTACGACGGTTCGTTCTACCGGGCCAAGA AAC
T B 9 C s	TB9Cs4H2	Liang et al. 2005	73	6	1182	5741	6	1182	CCACATGATGATCCATGTATTACCATATCGACAC TGAGTCGAAACTCCCCGTGACGCACAAGTGATTG TGCATGGAACCGCCGCACACGCTGTAGGGCACTG ACTA
	TB9Cs4C2	Liang et al. 2005	109	6	1974	1340	2	1974	TACTATGATTACATCCATAATGCGTCAGGACACAC GAGTGTGTACGTGACTGTTGGATTCTAACGCGACG CCGTAAGCAATATGATCA TAAGTTTATTATTATCATTGTTTCAAGAAAAGACAA AACTATCCGTAACGAGAAAA
T B 9 C s	TB9Cs4C3	Liang et al. 2005	88	6	396	3059	6	396	TAAGTTTATTATTATCATTGTTTCAAGAAAAGACAA AACTATCCGTAACGAGAAAA
	TB9Cs4H3	Liang et al. 2005	56	5	0	0	5	0	
T B 9 C s	TB9Cs5C1	Liang et al. 2005	100	1	1896	1066	2	1896	GCGAGTGATGAGAACATGGAAC TATTGCACGTTTA TATGATAAGGCAACTTGATGACTTACACACGCTTC ACTAAATATCGTACGAGCGATTACTGATCA AGCCGGCGTAAGAGTCATTCCCCGTGGTCTTATCG TGTACCAGGTAATGTAGTAAC TACGGCAAGATAT A
	TB9Cs5H1	DS	70	1	310	1236	1	310	GCATGATGACGAAAACAATTTTGCACGTCAGTTTGA ATTAGCAAATGTGAAGATGAAATTGACACAGCTAT TTTATGGGCTGTCTTGATCT
T B 9 C s	TB9Cs5C2	Liang et al. 2005	90	1	147	897	1	147	CCCTCCGTTGTTTGTGCTTTTTGATATACTTGCTA ATGCTTTGAAGTGTGTGAGGGGAAGGGGAGGAGGG AGAGAAAA TGTTTCTTTTTATTATTATTATTGCTTACGTTCA TAAAAAGTAGAGGAATGGAATGGAAAAGAGATGG
	TB9Cs6H1	Myslyuk et al. 2008	150	1	0	0	1	0	
T B 9 C s	TB9Cs6H2	Myslyuk et al. 2008	68	1	0	0	1	0	
	TB9Cs7H1	Doniger et al. 2010	70	1	5	0	1	5	CGTCTTGGCCACCAACTCATTAAGGAGCCATTGGG TCATGAGCAAATACTTTTCGCCCGGCCAGCGTA CGATGGCAAATACGCTTAAGGGCTTTTAC

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TB10Cs1C1	Liang et al. 2005	96	3	2185	2220 5	GTGTATGATGAGAAACCTATTTTTATGTAACCTCGG GAGAACTGAGCATATTACCTGATGAGTAAACAATC AATCGTTAGATAGTAGCACTGATGT TCATCCCCCTTTAATAGCGAGTGGTCTTTGTGTGCA TCTCCGCAAACCACTCGTCTACACCGGGGGAAAGA TAA TAGTGTGTGTGTCTGTGTCCGTCTACTAGTAAA GGATGATGAGGATGCGGCCACCCACGCGACGTGA TGCGGTGTGTGTGACTGCAGGCGTGTAGTTT CCCCCTCCGCTGCCGTTGCAAAAAGCAAACCCATTTT GGGCAACATACGCAGCCGCGCGCCACAAGACGCCCT CCACCGCTCGACGGGGTGCCGCCATGACGCGGGTC CCGAGCCAAAAGTCCCTCGCCGAATTTCCGAAGGC AGTGAGTGCCCTCGCGTGGGGAGACCTGCGCGCAGT AAAACCTCGTGCCGCTGGCGGTGCGGGGGCCACCG GCTGTGGTGGTTGATCCCCCTCTGGTGGATCCCACA GCAGCAACTACGCGGGCCGTAATTTCTGTCGGTGCG AGACTCCCCACCCGGTGGTATGAATGGCGGGCACC ACTGAGTACACGTATAGCCATGAGCGGCATGTGCA GAAGAGGGCTTACAAAGGAGGCAGCGCGAGCGAGC GAATGGGTAACACTGGCGCGCTGCAGAGAAA TCACGTGATGAGCATTCAATTCACATCGCGACACA CCGATGATTCGAATGAGTGAGCTTCGAATGGGATA AATTTAATCGAGAAAAGAAGAGCTGAGAT CGAGCACTCATTTCAGCTGCGCGAGCATAAGCGT GTTGCTCCGTGGTCCGGTGACGTGCGAGACAC GAGAATGATGAGATTGCCATCATACTATTGGAAGA CGAGTCTGAACCCCTGATGCATTTTATCATGCGGCA CTGACGA GCAGGAACGTGGCAGGCTACCGAGGTACACTCGT GCTTCGCGTGGTTCAACAACATGGTCCCAGATTG
TB10Cs1H1	Liang et al. 2005	73	3	80	1137	
TB10Cs1C2 (MRP)	Liang et al. 2005	520	2	950	7659	
TB10Cs1C3	Liang et al. 2005	98	2	1208	5853	
TB10Cs1H2	Liang et al. 2005	67	2	414	1996	
TB10Cs1C4	Liang et al. 2005	78	4	2524	2272 7	
TB10Cs1H3	Liang et al. 2005	69	3	79	1173	
TB10Cs1'H1	DS	68	1	55	458	GAAATCTCGCAGTGTACTTTCGCTTAGGAGCTAC AAATTAATGGAACGCCCATTTGTAAGACATCTAA CGCCAGAAA
TB10Cs2H1	Liang et al. 2005	68	2	542	2356 1461	TACGGCGTTGTCCGTTGGGCCAGTGGCAAATTTTA TCCCTGCAGCCCTATCTCGCAACTCCTAGAACC TAACATGACGAGTGAGGAGCGCTATATCTTCTTCA CCAAGTGCAGAATTAACCGTCTGAGTACTTTATCA CTTTGAAGTGAAGCGCAACCTGATTT TCAGGGAGTTCTGTACGCCGCTGAGTGGTATTGCT CGCTTAGTGAGCGATTTACTCCCCAGATTT
TB10Cs2C1	Liang et al. 2005	96	3	1572	2	
TB10Cs2H2	Liang et al. 2005	66	3	215	2007	

T B 1 0 C s 2	TB10Cs2C2	Liang et al. 2005	70	3	1285	1167	CGCTGATGAAGTTGATATGGTCCGTGTTTCAGATC GCTGAATTGACGCACAATAGCATATCTTCTGAGTT
						1	
T B 1 0 C s 2	TB10Cs2'C1	Barth et al. 2008	88	1	13	15	GCACGTGATGAGAGTATGTTCTTTCTATATACTGA TTTGTCCATTGAAGTACACAGATACATATTCATAG ACTGTCGTTTCCCTGACC
T B 1 0 C s 2	TB10Cs2"C 1	Doniger et al. 2010	74	2	270 3	8084	TGATGACATCACTAAGCGTTTCTGACGGAATTTCGT ATGCTGAACACATAACAAACGCAAATCACTCCACA CTGA TGAGGCAAACGATGAAAAATAAATGGATCGCTGA CTCTGAACACATTATCTGATTGACAGGACATTTCT TTGACTATACCTCTGA TGATTACAAAGCAATTTTATCCTCACCTGACGTG AGTGGTTCTGTGACGAGAAACCGATTGACAATAAT ACCAAGATCTGCTATGA
	TB10Cs2"C 2	Doniger et al. 2010	77	2	454	2182	AGACGCTGTATTAATCCCGCCCGTATGGCAAAC CATGCCCGGGCGATTTCATGCACAGCGGAGATGC
	TB10Cs2"C 3	Doniger et al. 2010	95	2	809	6792	
	TB10Cs2"C 4	Doniger et al. 2010	63	2	125	594	
T B 1 0 C s 3	TB10Cs3C1	Liang et al. 2005	111	4	1416	9097	CGCGTGATGAGGTGCAGAAGGCATGTCGCCGCTAC GGCGGTGGCTCGCGTAGCCGTCTGGCTGTGCGCGT ACTGTGAGCTACTGTACTCCATGGGTGAACAATCT CTGATG AGCAGTGTGCTATGCGTTCCCGTCAGTAATACGG GCTAACGGTACGAAGCACGTGCGAGAGGT GCCTGTGAACACAGCAGGTACACATGATGCACACA ATTCAATACTCACTCTGAACATCACTTGTGAGGAG GAATGTGATAACATGCACCACCAGCTGATCA GCGCATGATGTGCTCAACTGGAATTACCATCTGAA CGCGGGATAACCGCAAGTCGATGAATTAATGCTACG TGCAATTACCTCCGCTGTTACTCGTATCACTGACAC CGCGTGATGACATACAAAGTTGTTTGCACATTATC CGACACACCGTGAGCGAGTTACAATATTACAAGAA CACCATCTGAAT CGGTGATTAGCAGTGCCTCTTCCACCTAACGACCC TTGATGATTATGATACGATGCCCTGGTCAACAGAAC TATACTACACCAAATTTAGTAAATGAGAC GCAGCCGCCCGGGCAGGATGGCGCCCGTGTCCCTT GGCGTGACGTCTAATCGGTGCGGCGAGATGT
	TB10Cs3H1	Liang et al. 2005	64	4	704	4818	
	TB10Cs3C2	Liang et al. 2005	101	4	525	4818	
	TB10Cs3C3	Liang et al. 2005	105	5	561	4821	
	TB10Cs3C4	Liang et al. 2005	82	4	902	5071	
	TB10Cs3C5	Liang et al. 2005	99	4	687	5984	
	TB10Cs3H2	Liang et al. 2005	66	4	567	1538	
T B 1 0 C s 4	TB10Cs4C1	Liang et al. 2005	78	1	0	0	GTACTTGAAGATGGGGATGATATGAATATGTTTCAT ACGTAATGAGCGTTTTCTGCCTGCAATGAAGTAG ACTGATGC

						TTATTTCTTTTCATATGTACAAACCTAAGGCAGTACC C C A A A A T A C G C T T A T C A C T C A T C A C C C A A G A A A A A	
TB10Cs4H1	Liang et al. 2005	77	1	0	0	TAGACAG	
TB10Cs4H2	Liang et al. 2005	68	3	376	3209	TTACCGTCTCTGTCTAACGCCTCACATGTGCAGAA A T C G T T G T G G G G C G A T T C A G G A G G C G G A G A T A T C T G C G T G A T G T G A C T G C G C A C T G A C G A C C C A T C A T G A G C G A G A A A C C A A C T T T G C G T T T	
TB10Cs4C2	Liang et al. 2005	87	3	1941	680	ACCAATCTATCTGATTC T G C G A C G A T G A G A A A C T G T C T A A C G A C A G G C G G A C G A C A T C C A A T G A G G A C T C T T G A A T G T G T A C A A	
TB10Cs4C3	Liang et al. 2005	80	4	1406	6658	ATGTTGAGCA C G A C G C C C A T A C A A C C G C C C C A C A C C G T G C T T T G C	
TB10Cs4H3	Liang et al. 2005	69	4	229	510	ATGCATTGTGGGGTGATACATGTGGCGGAGATGT G T G T A T G A G G A C A G A A G T T G T A G T G C G C G A C T G A G T G A C A A C T T A G T G C T G A T T G A T A C C A A C G C T T T T C A	
TB10Cs4C4	Liang et al. 2005	96	4	6308	1	GCGAGAGTGCTGTACTTGACTGACAC	
TB10Cs4H4	Liang et al. 2005	67	4	300	3264	TGAGGAGGCCCGTAGCCACGGCATGCCTTTTTGGT G G T G C G T T G T G G G T G G T G G C T T T C A A G A G G C T G T A G A A G T G A G G C T T A T G T T G T G C T T T T T G A A A A A T A T C A C T A C A C T T A C C G G A G T G C A C T T G T C A G T A T C G T T A A A G C T G A G C C	
TB10Cs4C5	Liang et al. 2005	86	2	0	0	TCGTTAAAGCTGAGCC	
T B 1 0 C s 4 '	TB10Cs4'H1	Doniger et al. 2009	99	1	194	392	ACCCAAACGTCTGCTACGCGGTGTGCTTCGTACGC A T G T T G A A T T C A T G T T G G G A T A G G A G T G G C A C C A C A A A G C G G C G T G A G A T G A C A T
T B 1 0 C s 5	TB10Cs5H1	Myslyuk et al. 2008	86	1	0	0	CTTTTTCTTTTATCTCGTTTTTGTAGATCTCTACCA C A T G T G C G T A T G C C A A A G G T G T A A T T A A A G C A G G T A G G A G A A C G A G G A
	TB10Cs5H2	Myslyuk et al. 2008	70	1	0	148	GGAGCAGACTACGTCTGTAATATGCGGAACCAACC T T C T C T G C A C T T T A C T G T A A A T G T C T G C G A G A T C A A C T T A T G A T G A C A A T A T T A T T T C T T A C T T T C T G A T C C G T G A T T T G A T T G A C A A G C A C T G T C T G T G C G A A C G T A T C G A A A C C T G A T T G A A C G G T A A C T C T C T G G A A A C T C A T C C C C T C T T T T C T G T A G A T G T G T T C C T C A T C G G T T C C C G G A G A A A A C
	TB10Cs5C1	Myslyuk et al. 2008	89	1	1039	8655	GAACGGTAACTCTCTGGAAACTCATCCCCTCTTTT C T G T A G A T G T G T T C C T C A T C G G T T C C C G G A G A A A A C
	TB10Cs5H3	Myslyuk et al. 2008	71	1	157	1732	C
T B 1 0 C s 6	TB10Cs6C1	Doniger et al. 2010	70	1	0	0	GCCTCATCCATTGTGCATAAACTCAGTTTGGAAAAAG C G A A T T A A G T A G C G T T G A C T T A C C G C T G C T C T G C C A A A C A C A C C A A C C A C A T G A T A A



T B 1 0 C s 7	TB10Cs7C1	DS	82	1	418	3642	GCUAUGAUGCCCUGUCAAAUAAAUGCGUUCUGUUUG AACUGACGUUUAAAGUAGGAUGUCACUGAGACACA AGAAACUGA
T B 1 1 C s 1	TB11Cs1C1	Liang et al. 2005	76	1	0	0	CCGATTAATAATGTATGTGACGCACGGTGTCTAAA ATAGGGGTACCTGCGTGCTCTGCAGTTGGGTTC TGAACA CTTATGATGAGAAGACACGTTTACCTGACACCTCT TCTGATTTAACATTGACGAGTAAAACTGCTAACA GTTATCCCTGTCTGAC GTGCGTGATGTTCAACAACCGCAATCACTCCCATA CCTCTGATAGTATTGTTTGATTGACACCATTGCGT ACTGATGC
	TB11Cs1C2	Liang et al. 2005	86	2	98	732	
	TB11Cs1C3	Liang et al. 2005	78	2	541	2315	
T B 1 1 C s 1 '	TB11Cs1'H1	DS	73	1	54	516	TGAGTGGTTAAAAAAGGAACATGACTGGGGTTCT GCTCTCTCCTTTCATGATGGAAAGGCCACGAGAAT TC
T B 1 1 C s 2	TB11Cs2C1	Liang et al. 2005	76	2	7934	5836 0	TGAATGATGACTGACAAAAACATCACAGACTTTGAT GACCCCATGAACAAGAAAAATTGTCGCCCCAGACT GATT GAAGTGATTGACACCTAGGCCGATGTAAAGCCGTC GCAGATGGACGTCGATATCTTGTGAAAACAGTACT ATTTTATGCCCTGACTGATC AAAGCTCTTTTATGTAGTGTGCGTACCACGAAAGT AGCAGGTACTIONGCACACGAAACTGGAGAGCGAGACT C CGCGACAAGGTCAGCCTGAGGGCACACCTTCAGTG TGTGTACGGCCTCGGGAGGGCGTATATCCGCTCGA GTTCGAGAGCGAGGGAAATGGTGGCGTGAAGCTCT GCCACTGGTGCATCAGTAGCTCGGCATTACTGTGT TCGATGCTCTGCGCTCAGTGGACATGATGCTCCGC CGCCCATATATCCCCTTATGTATATCCTGTGTGCG CTCTAGTTCCGTTGGGACCCTGAAGAGTAAGCACA CTAAACCATGCATTATACATGACC
	TB11Cs2C2	Liang et al. 2005	92	2	2	3817 2442 71	
	TB11Cs2H1 (SLA1)	Liang et al. 2005	75	2	8	2243 1288 51	
	TB11Cs2C3 (snR30)	Liang et al. 2005	179/2 70	2	4284 3	3345 18	
T B 1 1 C s 3	TB11Cs3H1	Liang et al. 2005	75	1	46	595	AAAGCCCTCATGAACAATCCCACCGGTGAGTGTAC TCATTTAATCTCGTGCGTGGACCTAGGAGCGCCAA GATTT

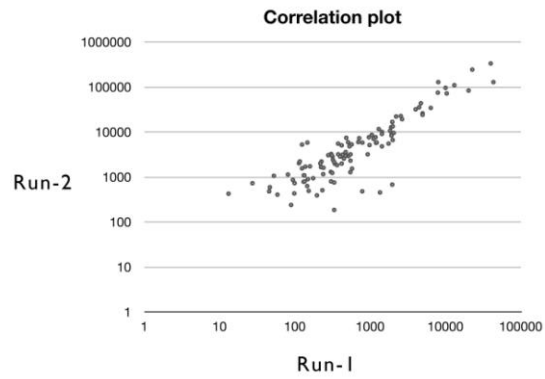
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TB11Cs3C1	Liang et al. 2005	92	1	129	786	GGACGTGATGAAGAAAAATTATTTACTTCTGTTTG GAGAGGGTTCAGGAACACTCTCCATGACGTTACCA TAATTAATCCATTCTCTGATCA TTTTGATGAAAAACCTTTCATGCTGTGTGACGTAC TCCCTTATGAGGGCAGGCACAAGCTGCTTGCGGCC TAGTGTGTCATGCAATTGATTATAGACGGCATTCTGA
TB11Cs3C2	Liang et al. 2005	106	1	3972	3194	A TCGTTGTACCGAATGTGGCGTGAGCGTTGTGCATA CCGGCGTATTCGCAATGCCGCCCTAAACGTACAAA GATTG
TB11Cs3H2	Liang et al. 2005	75	1	0	0	
TB11Cs4C1	Liang et al. 2005	90	5	306	3047	TCTAATGATGACAGTCAATAGTTTCCTGTCAGCCT GACGGCAGTAGAGCCATTTTGAAGACATAATTTTT AACTCAGCTACACTGAATC GCCACTGATGCTGTGATGCATAATTGTTGTTTCGAG GTCCAAACAGTTTGAGCGATGCATTGATAACGGAA CATCAAAAATCACCTTTCGGCTGAGCA AAATCTTACCCTGTCTAGCTGCCTGTCAGTATACT TTCGGTGACGGTATTGGCTCGAAAGTGAAGAGAG ATCG CAGTGTGATGGAAACAACGATTATGTGTACGTGAA GGTCAATATGCCTTACTTTATGAGCGCGCTTATTG AATACTAAAATCAAACCTCAACAGGTCTGACTG AGAGGTATGCATTGAGACCCACTGCCTTCATATGT AGGCGAGTGGGAGCATCAGCATCCCGAGATAA ACAGCGCAGCATCCCTTGGGCCAGTGGCAACCATT TAATGCCGTGGGGATGTGGCCCTGTCTGTTGCG CGAGAGCC
TB11Cs4C2	Liang et al. 2005	97	5	328	2164	
TB11Cs4H1	Liang et al. 2005	74	5	86	1844	
TB11Cs4C3	Liang et al. 2005	101	6	173	940	
TB11Cs4H2	Liang et al. 2005	69	6	1098	7053	
TB11Cs4H3	Liang et al. 2005	78	5	793	7442	
TB11Cs4'H1	DS	60	1	443	2576	TGTGTAAACAGGGTGTGCTTGCCGCGTAGCTGCAC CGTGTGATAGAGGTAGCGGAGATGA CGTGTGATGATATTAGTGATCTTTTGAAGTTAGCC CTTCAATCCGAGAGTTTCGTGATGGAATAACCGTT
TB11Cs4'C1	DS	70	1	123	1561	
TB11Cs5C1	Myslyuk et al. 2008	88	1	0	0	TGTTGAGTGTGTGCGTGCGTGGGTGATGTCTTTTG TGGAACCCAACCTGTACCTGCCGGGTGCGGGAAC GAGATGCCCGGAGCTGA CTCAACACCCACCAACCAGCCCCCTTCTGTGCGGT AGCTTGCACAATGGTGGCCAAAGTGTGGTGTGAGA TTT CAAGCAGCATCAGTACAGCGGTGGTATCGCTAAGG CACCATGATACTTCCGCTGGCGATGTGGCGAGAT AC
TB11Cs5H1	Myslyuk et al. 2008	73	2	237	1612	
TB11Cs5H2	Myslyuk et al. 2008	72	2	329	757	

	TB11Cs5C2	Myslyuk et al. 2008	80	1	0	0	TGCTGTTTTTCGTCTTCCTTGCGTTTTTTCCCTCT ATTTTCGTGTTCCCTTTCGCCTACAAAGTTCCCGGCG GTGACCCTGA
	TB11Cs5H3	Myslyuk et al. 2008	71	1	44	186	TAAGGTCAGTTCGAAGGCCAGTACTTGTACCATT GTAAGTGCAATGTGGTTCAAAAAGCTGACCAAGATT T
T B 1 1 C S 6	TB11Cs6H1	DS	65	1	1335	5266	TTTGTCTACGTGTGACTTCACAGGCAGTTAGTTGC CGCTGTGCCTGAGTCATGTGAGAGAGATAT
T B 1 1 C S 7	TB11Cs7C1	DS	75	1	74	455	ACCGGTGATGACTAAAGCGGGAATATTTTCGCATGT GTGTACGAATACACATCGCCGCTGCACCTGAACAA AAGAG

**S-4. Summary of *T. brucei* snoRNAs identified to date.** Each snoRNA is listed with its name, reference to the paper in which it was initially reported, genomic location (chromosome, start, end, and strand), the maximum number of reads to the gene, and its sequence. Novel snoRNAs, identified in this paper, are highlighted in yellow and designated DS.

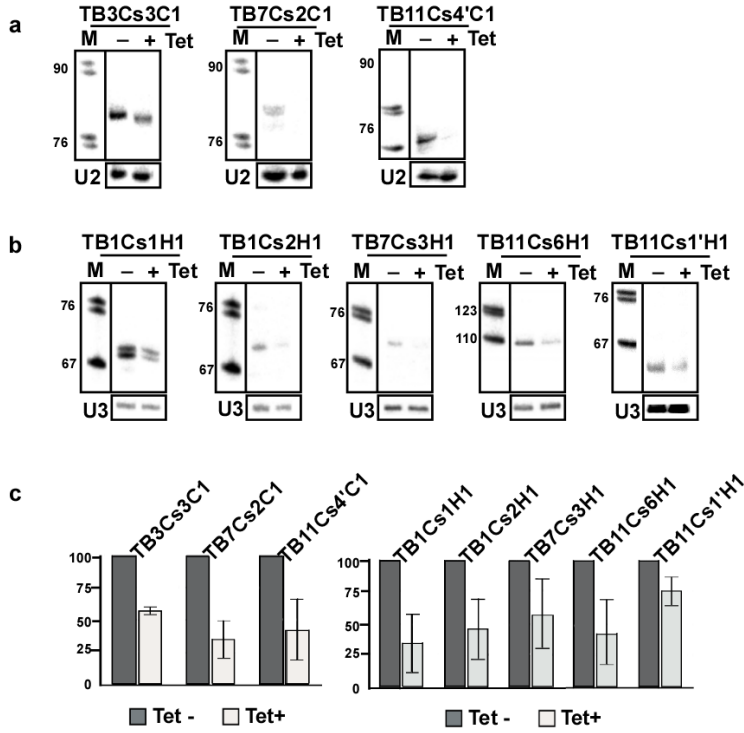
## S-5



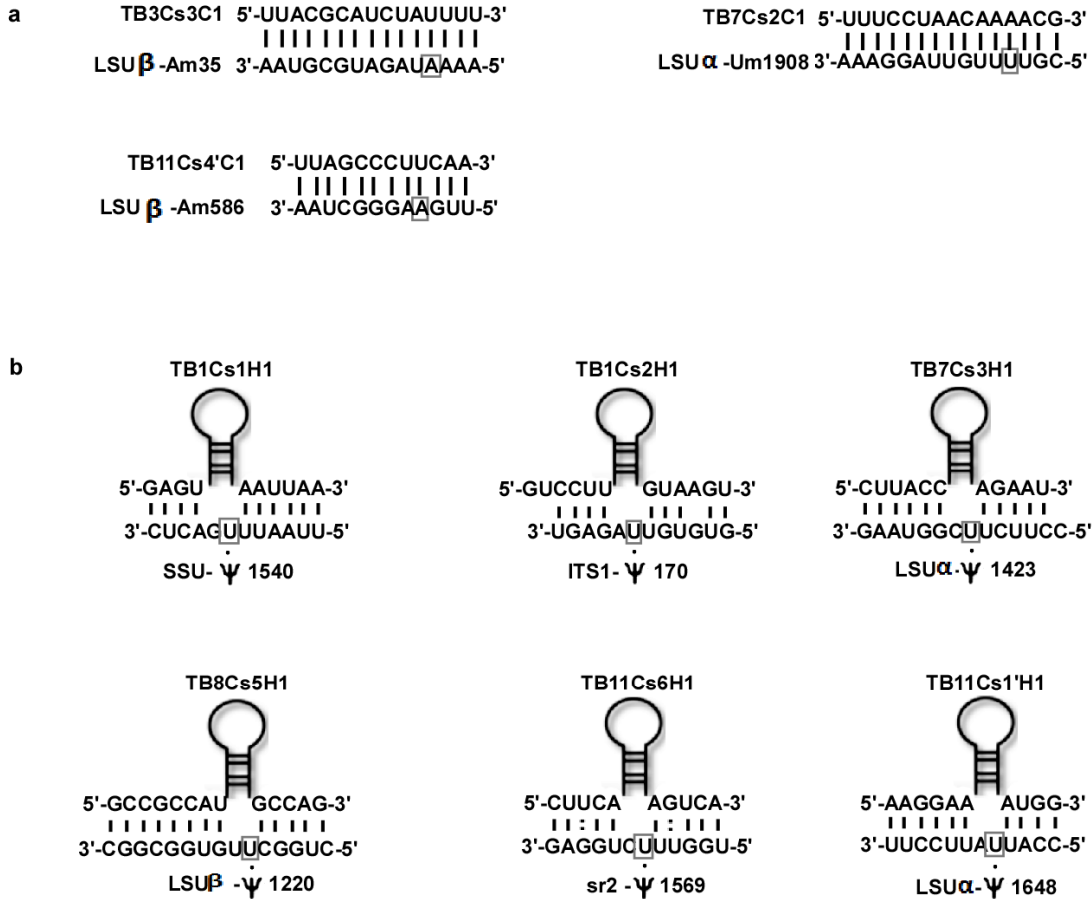
**S-5. Correlation plot between replicate experiments.** The correlation observed for the number of reads of snoRNAs in the two experiments.

S-6

A



B

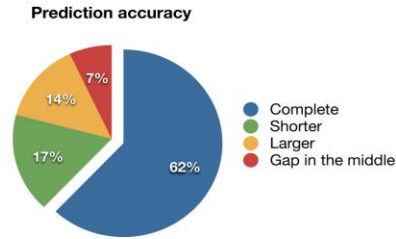


**S-6.A -The level of snoRNA in cells silenced for NOP58 or CBF5. A-a** - Level of C/D snoRNAs following NOP58 silencing. Total RNA (20 µg) was prepared from cells carrying the NOP58 silencing construct without induction (-Tet) or after 3 days of induction (+Tet). The level of the snoRNA was determined by primer extension. Primer extension with U2 snRNA was used to control for the amount of RNA in each sample. **b** - As in a, but analysis was performed on RNA isolated before and after 3 days of induction of CBF5 silenced cells. **c** - Quantitation of the data based on three independent silencing experiments. **B-a** - The potential base-pair interaction between rRNA and the C/D snoRNA. The position of the modified Nm is marked with a box. **b** - The potential for guiding pseudouridylation on rRNA is presented, and the pseudouridine position is indicated.

S-7

A

	Accuracy	Complete	Shorter				Gap in the middle	Larger				Total detected	Not detected by RNA-Seq	Total
			Shorter at 5'	Shorter at 3'	Both	Total		Larger at 5'	Larger at 3'	both	Total			
C/D	54%	29	3	5	3	11	3	3	7	1	11	54	10	64
H/ACA	74%	29	0	5	0	5	3	2	0	0	2	39	7	46
Total		58	3	10	3	16	6	5	7	1	13	93	19	110
Percentage		62%	3%	11%	3%	17%	7%	5%	8%	1%	14%	100%		



B

**TB6Cs1C2**

5' - **TGAAACTGAATTGCGGGCCCAATGATGTTGTTATTTAATTATACACCTGATCATGTTGTTGATGAG**  
**AGGAAACGCTGAGGTGTACGGCTCGACGT** - 3'

**TB8Cs1C4/TB8Cs1C1**

5' - **TCCCTTGATGATTGTGGCAACTCTCCACGGAACTTATCTGACAAAATTTGCCTACGAACCTATTA**  
**CCAAGGCTGAGGCTCTCTACAGTACCCTTGGCTTAAAGCTCTGTGTGTGATGATATACGACTATGAACAA**  
**CTCGTCAGAGTGCTATCTTTGATGATCACATACATTTTGCTTCTCCTACTGACAA****CATACCTGCATTTGC**  
**AATCACTCCTGTAA** - 3'

**TB8Cs2C0**

5' - **GCGCGTGATGAATAAATACAAACGACCAATAATCGGAAGCGTCAGTAACACCTCACGCATGACGC**  
**CACTTTGAATGCA****ATACTAATTATCTGACTC** - 3'

**TB8Cs2H1**

5' - **CACCTCCGCTTCGCTCGTGGCATTCTTCCA****GTGAGCGCACTTACGATGGATGGTGGAGGA**  
**AGA** - 3'

**TB8Cs2C1**

5' - **TACCTC****GATGATGTGATGAGAACAAGCATATGTCCGAGCTGACCACAATTGTGGCACAATGAGA**  
**GCATTACTCGAGTCCTTGAAAGCTGAGTG** - 3'

**TB8Cs3C2**

5' - **AGTGACGGTGTGATTACAGACAGGACGTAAGTGAAGTCAATGTCAATA****CTCCCGTATTACA** - 3'

**TB9Cs1H3**

5' - **TTAGTTCCCAACGGGCATGACTGCTTCCACTTGGGTTCTTGAGGCGGTGTGA****GAGTGT** - 3'

**TB9Cs1C1**

5' - **CTTCGTGATGATCCCGGAACTGAGTGTACCTTTTTTCAGCACTTTTCGTGCAATGGAATGTAATG**  
**GCACGGTGCCCTCTTGTGGGGTGTACTGATA****GAGATTAAACGGGAAACGTGCTGAT** - 3'

**TB9Cs2C7**

5' - **CTACTTGATGACATCAATGGACTGGAGTCTCTGAGTGTATTTGAATGACAATAACCCATTTAAAGA**  
**ATATTCTTCTTTCCCGGCTGATGG****TGTTTGGTTTCGTC** - 3'

- Larger in deep sequencing
- Shorter in deep sequencing

**TB9Cs2C1**

5' - GCCCATGACGATAAACCACTTACGACGGTCTTATGACACACACCCGAACATGGATTGAGCACGAGT  
 GTTACGATAGTTCTGGGGCGCCGCACAACATTCAGCCGCGTGCCTCGCTCCGAGGGCTAGC-3'

**TB9Cs2C5/TB9Cs2C6**

5' - GCCACTGATGAAAGAGCTTCCGATACCGCTAGGCGGAACGGAAACACACTATGTCGATGCAACTG  
 TGAACCTCTATCTTTCGCTCCGAGCTGACGTTGGGGTTAGCAGTTCGGCGAGTAGGTCCGTGTGATGAAT  
 ACCTAATATAACAAATTAACAGCAACATCTGAACAGAACCCGTGACGCTAATATTGTTCTGACGC-3'

**TB9Cs3H2**

5' -TCGAGTGCCTCAGGTATTGTGGTGTGTTGTTGCTTATCGCCATCACAGTTCAAGAGGCACAAGAA  
 GTGGATATCACT-3'

**TB9Cs4C1**

5' - GGATCGTGATGATATTAACCTGCTCCGCTACTGAGTGTGAAGCATGAAACGATATCCTTCAGGG  
 CTACTGATGCCTGCGTGGCAGTGTATGGGGTGT-3'

**TB10Cs1C4**

5' -AGAATGATGAGATTGCCATCATACTATTGGAAGACGAGTCTGAACCTGATGCATTTTATCATGCG  
 GCACTGACGATCTTACATTGGGGT-3'

**TB10Cs2C2**

5' -GATCGCTGATGAAGTTGATATGGTCCGTGTTTCAGATCGCTGAATTGACGCACAATAGCATATCTT  
 CTGAGTTCTGCACTGCCCCCTGACTATCGCTGTT-3'

**TB10Cs3C1/TB10Cs3H1**

5' -TCGCGTGATGAGGTGCAGAAGGCATGTCGCCGCTACGGCGGTGGCTCGCGTAGCCGCTGGCTGTG  
 CGCGTACTGTGAGCTACTGTACTCCATGGGTGAACAATCTCTGATGACGTGTACAGCGGGGAGCAGTGTG  
 GCTATGCGTTCCCGTCAGTAATACGGGCTAACGGTACGAAGCACGTGCGAGAGGT-3'

**TB11Cs2C2**

5' -CGTGAAGTGATTGACACCTAGGCCGATGTAAAGCCGTCGCAGATGGACGTCGATATCTTGTGAAAA  
 CAGTACTATTTTATGCCCTGACTGATGCCGTGGCCGC-3'

**TB11Cs3C2**

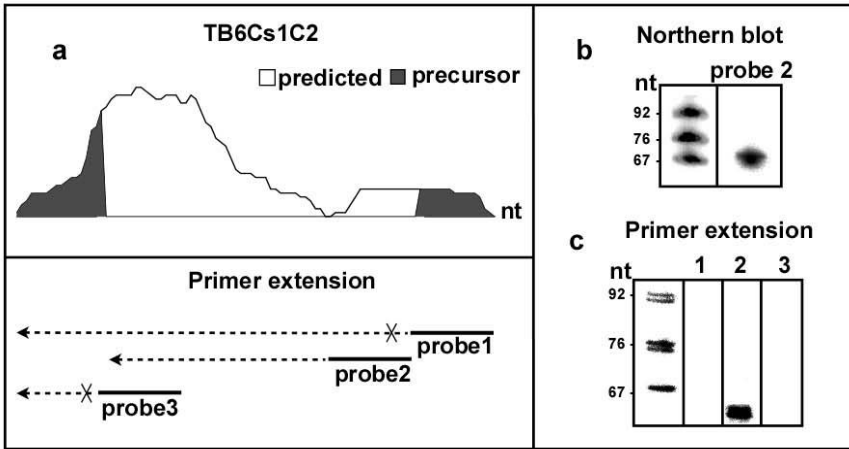
5' -TTTAACTGATGAAAACTTTTCATGCTGTGTGACGTAATCCCTTATGAGGGCAGGCACAAGCTGC  
 TTGCGGCCTAGTGTGTCATGAATTGATTATAGACGGCATTCTGAAA-3'

- Larger in deep sequencing
- Shorter in deep sequencing

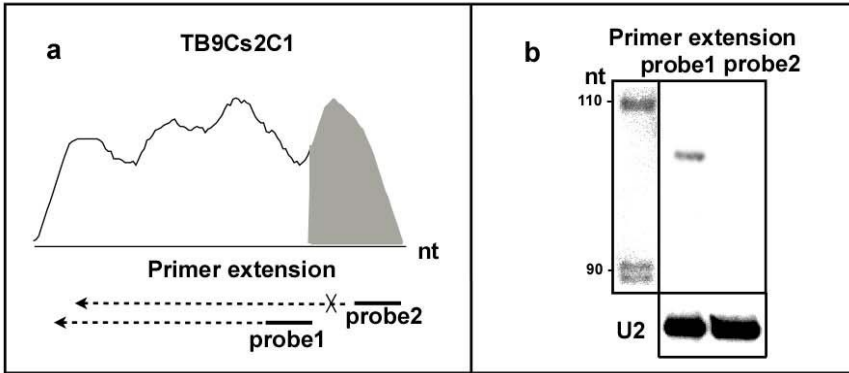
**S-7. (A) Reads coverage of the snoRNAs versus the predicted consensus.** The pie chart illustrates the difference in coverage of the reads per snoRNA as compared to its consensus span. **(B) List of the sequences which differed from the consensus.** Each snoRNA is presented with its sequence illustrating the deviations from the consensus, areas where reads did not fully cover the snoRNA (orange) or where reads exceeded the boundaries of the predicted snoRNA sequence (green).



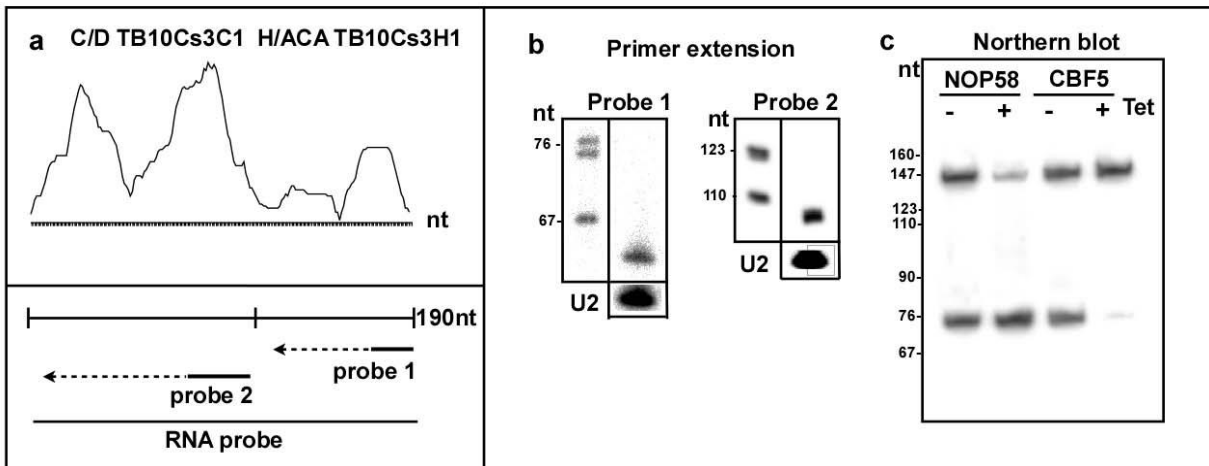
**A**



**B**



**C**



**S-8. Correlation between the RNA-seq reads and the transcripts in steady state.**

**A -a** - Schematic representation of the RNA-seq reads for TB6Cs1C2. The area representing the expected full length RNA is depicted in white and the area beyond the expected boundaries in gray (upper part). The position of the primer is indicated (lower part). **b** - RNA (20 $\mu$ g) was separated on a 10% denaturing gel and subjected to Northern analysis with probe 2. **c** - RNA (10 $\mu$ g) was subjected to primer extension with various probes, as indicated. pBR322 DNA-*Msp*I digest was used as a MW marker. **B-a** - Schematic representation of the RNA-seq reads for TB9Cs2C1. **b** - Primer extension with the two probes. Primer extension with U2 snRNA was used to control for the RNA level. **C-a** - Schematic representation of RNA-seq reads for TB10Cs3C1 and TB10Cs3H1. **b** - Primer extension with probe 1 and probe 2. **c** - Northern analysis to verify the identity of the RNAs. RNA was prepared from uninduced CBF5 or NOP58, and after 3 days of induction, the RNA was subjected to Northern analysis with a probe covering the two RNA molecules.

**S-9**

Name	Max # of reads	Chr	Start	End	Strand	Sequence
TBsRNA-1	183	1	82872	82920	-1	ATTTGGAAGAAGGCGTTGATTATTGCATGACCA AAGGCTAAAAAGAGC
		11_02	270176	270224	1	
		4	31946	31994	-1	
		5	33916	33964	-1	
		9	2450733	2450781	-1	
TBsRNA-2	361	1	593321	593430	1	ATGATGCCTTGTGATTGTTTTGCCTTTTGCTAC TATTCATCGGAGGCCGTGCGTGGCGTGCGCGGAT TGTTGTGCAGGTGTACTGCCGGCGTGTCCCCGC TGCGCGGT
			594904	595013	1	
			598082	598191	1	
			599668	599777	1	
		601252	601361	1		
TBsRNA-3	1033	1	793143	793203	1	TGCCGAATGGCTGTGGGTATGACACTTCCTCAGT TAAGGGAAGGAGCGAGTGTGTGAATA
TBsRNA-4	641	5	1271611	1271691	-1	ATAATGCACAAGACGTGTGTTCGTTGAGACGGCG TTATTGCCGCTCCGCCTTAGATAGCAGATGGCC AGGAGGTTGATACACCGTAATGGTAACATCCCTC CTCTGCCTCACCAAAG
			1273083	1273163	-1	
			1273819	1273899	-1	
			1275291	1275371	-1	
			1276027	1276107	-1	
			1276763	1276843	-1	
		1277499	1277579	-1		
TBsRNA-5	429	6	211576	211644	1	CTTGAACCGTCGGCGGTAGCACGCAGCCCTGTA GACTTCTGCGTGTGCCTGTCAATGTGTTCTCTGG C
			218983	219051	1	
			227688	227756	1	
TBsRNA-6	249	5	1270801	1270831	-1	CTTCTGTGCCATACACTCCTCACTAGATCATCTG GAGATGCGATTGCGGTGCCATTTTC
			1271500	1271567		
			1272236	1272303		
			1272972	1273039		
			1273708	1273775		
			1274444	1274511		
			1275180	1275247		
			1275916	1275983		
			1276652	1276719		
		1277388	1277455			
TBsRNA-7	283	9	848025	848125	1	AAAAACAGAGAACCCTGGTGGAGTTCTACAGCA TCGGCAGTGAAAACAATATGCCACCGAAGAGCAA CGAAGATTACGTGCCACCAAGGACAAGGCTGA
TBsRNA-8	913	9	848388	848473	1	TTATGGTCGAGCGAAGGAAAGTTTAAACGAAAAC GATCCAGTGCAAAGGGTAAAGAAAAGCAGGAATG CGAAGGAATGGAAGAAAT
TBsRNA-9	1091	1	689610	689661	1	AGGGACGGTAGAAGCAGCAGCTGTATACCAATCG GAGTGGCGTGGTTGCACA
TBsRNA-10	275,218	11	2599303	2599454	1	CGGGCGCAAGGATTTCCGATACTTCTGCATAGCA AACAGCAAAGGGGCGTAGCTGTCCGCGAGGGAGG GCACCGACGCCTTCCCCCACCCCGTGGCCCTCG GCCGCACTGGACGCAAGTCCACCCCTGTCCGAA GCCGCAATCGCCTT
TBsRNA-11	779	1	593360	593432	1	ATCGGAGGCCGTGCGTGGCGTGCGCGGATTGTTG TGCAGGTGTACTGCCGGCGTGTCCCGCTGCCG GGTTG
		1	594943	595015	1	
		1	596535	596607	1	
		1	598121	598193	1	
		1	599707	599779	1	

		1	601291	601363	1	
		1	602875	602947	1	
TBsRNA-12	685	1	593736	593834	1	TGATAGAGGACAGCATCTGTGAATGTGTGGTTACTCTTCTCCCTTTATCCCTAGCCTCTCCACTTCCAACCTCCCTCTGCCTCCTCTCACCCCT
		1	595319	595417	1	
		1	596911	597009	1	
		1	598497	598595	1	
		1	600083	600181	1	
		1	601667	601765	1	
TBsRNA-13	1980	6	669222	669289	-1	CTCCAGTATCTCTGATATGTTTCGTGAAAAGAGAAAGCTATTTAAACGTTGCGTCTCTCAGCTGATTC
TBsRNA-14	676	7	750112	750254	1	GTTTCGTCTGCTCGGAAGGAGGAATAACGATTATCATCCAACAGTGAATATGAGCGGTTGGTGGCGCCTCAGGTGACACGGTTTGTTCGCAAGATTCTGTGCCGCCGCTTATTTGTTTCCGATTGAGCGCATATGCGCAGTT
			762781	762923	1	
TBsRNA-15	3924	8	1762421	1762718	1	AACACACAATGGGGACCATCAGCCGCCCTGGAGGGATGCGGCCCTAAGTGGCACAGAAGCGCATAAAGCGCTTAAAGCGCCGACGACGACGATGCGCCAGCGCTCCAAGTAAGCGCCCTGATGTCATCGGTGAACA TTCCTCGTGGTGCCGTTTCAGTCTCTTTTTTGC GAGTTTCGCACGCCGAACCTCCCGATCAACGAAACGCATGCACATGTGCGTGCAACCTATTTATGGGTA CGGAAACAAGCATTGATGTCTTCCCTCCCTTTT TTCGTCTCTAGTTACCTTTCCATT
TBsRNA-16	3924	8	1762969	1763111	1	AACACACAATGGGGACCATCAGCCGCCCTGGAGGGATGCGGCCCAAGTGGCACAGAAGCGCATAAAGCGCTTAAAGCGACGACGACGATGCGCCAGCGCTCCAAGTAAGTGGACAGTCGAAACCCTGAACGATCCCGC
TBsRNA-17	283	8	1763124	1763185	1	CAGTCTCGCTCACTTGTCTTGTGCGCGCATGGATT CGTGGCAGGGGAACAACCCCAAGTGTGTA
TBsRNA-18	1176	8	1763478	1763627	1	AGGATGGGGACCATCAGCCGCCCTGGAGGGATGCGCCCAAGTGGCACAGAAGCGCATAAAGCGCTTAAAGCGCCGACGACGATGCGCCAGCGCTCC AAGTAAGCGCCCTGATGTCATCGAAAGAGGTGCAATAAAGCGCGCTGGCGGCCCTCGCGGCC
TBsRNA-19	1073	8	1763803	1763919	1	CCTTCAGTTTTTTCCCTCTCATTCTTTGCTCCCTTTTTCGAGGCTCCTGCAATTTGGAATGGCTACGAGGTTTTTGAAGAAGTCAACTGCCAGAGGATGGG GGAAGAAGTCTAAAA
TBsRNA-20	132	9	1922622	1922720	1	CTATATCAACCACGTTCCGGTTCATATGACCTCGTGGAAATCACTTCTGTTTCGTGCTCTTGAAGCATCAGAAGTGGCTGCGGTTTCTGTTTGTAGGGA
			1919045	1919143	1	
			1926198	1926296	1	
			1933356	1933454	1	
			1929776	1929874	1	
TBsRNA-21	925	10	1823778	1823865	-1	AAGCAGTGTCTTCTGGGCGTTAGATGTCTTACAAA TGGGCGTTCCATTTAATTTGTAGCTCCTAACGCAAGTAAACACTGCGAGATTTT
TBsRNA-22	513	10	3228472	3228547	-1	GCCTGCAGCGGTAAGCACTTTTCTTTTAGCTCA CATTCCGGGATAGAGGGTTCTTAGTCTAATTGGGCAAGAACA
TBsRNA-23	858	6	226718	226873	1	TTCCCTGCTTCAGATGGGCCCGCAGCTGAAGTTGTTTCGTGCGCTGCCCGCCACTGCTGCGTTGCTGCTGGAGAAACGATGTTGGAGGTTGACGGGTGTGTGCTTTTGAAGACTTTGTATGAATATGGAAGGAA GCTCGCAGCGTTACTACAG
		10	2480389	2480544	-1	
TBsRNA-24	537	10	288923	289026	-1	CCTCTCTCCGATGCGTCAGCCACACCGCGACTCTGTGTTGAGGGGCTGCGTTGCGGTTGCTCGTGATGAGGATCTGCAGCCAGTTTCTTCTTTGGGATTGAA
TBsRNA-25	869	11	4134243	4134299	-1	CTAATCCAAGACTTACCCATGTTATGGTTTTTGT TGGTTTTGCTGACCGAAGAGAGTG
			4140798	4140854	-1	

TBsRNA-26	6415	11	3893229	3893298	-1	CCATCCGTTGCCGTAAAGTTTCGTTTACTGGTTG TGGTGTGTTGGTGGCAGTCAGAAGAAGTGAGATG TA
TBsRNA-27	798	11	2704498	2704584	1	ACATGATGCTCTGCCGTTGTTATACTCGCTATGC ACGAAGTTGGTACTCTAGTCTGTTTGACCTTGAT GAGTTGCCTGCTTTGGTAT
TBsRNA-28	148	11	2704117	2704215	1	ACCGCGACAGTTTATTTTGTAGTTTTTGGCCCTTTA TGGTTTATCTCTATGAAAACGTGCGAAGATTAAG GGAAATAATGGCGTGAAGCTCTGCTGCTCGT
TBsRNA-29	536	11	1666815	1666870	-1	AAACGTAGGAAGCAAACGGGGACGGAAGACAC CGTAAGGATGCTGTCATCTTT
TBsRNA-30	276	11	2099249	2099338	-1	TTACCTGGAGGCACTCGGCAATGACATTATAATG
			2100435	2100524	-1	TTCTGTCATCCACTGGTGATACGAAAATGACCCC GGGAGAGGATGGCGGCACGACA
TBsRNA-31	1420	11	517081	517168	-1	AAGGCTGCTCCAAGAAGGCTGTCGCTAAGAAGG
			533986	534043	-1	CTGCTCCAAGAAGGCTGTCGCTAAGAAGGCTGC
			762781	762923	1	TCCCCAAAAGGCTGTTGCCA

**S-9. List of novel ncRNAs identified in this study.** Each novel small RNA was named sRNA 1-31 and is listed along with its genomic location (chromosome, start, end, and strand), and sequence.

S-10

Sequence	Kolev et al.2010, ID	snoRNA
<p>&gt;lcl Tb927_03_v4:255259-255636 No definition line found                      GCCACATAACACCCCATCTATTTAGCTAACAGTAAAGCAAATAAAAAAATTATAGATATTGGAGGCCATGAGTTTCATAT                      GCTGCAAGGAAATCGAGGCAGTAATGGCATTCCCAGGGAAAGCGAAGAAGGAAAATATTTCTCCAGCTTGTGGACAGAT                      CCCAGTCGCTACGATTTCTGCCATGATGCGGTGTTGGCGCCACCACCGCTACCACAAAATGAAACCA<b>CTGATGACTATAA</b> TB3Cs1C1  <b>CGTTTCACTCTTGTTCGTAGGAAATGTCTTGACGAAACTTATACTTCGTTTGATTCTGA</b>ATTATTTATTACTTCCTTCACA                      CCCTATCATTCGTCGCCCTTATTTACTCTTTCCGTTGGAACAATGATGTGAATCTAT                      &gt;lcl Tb927_03_v4:651407-651967 No definition line found                      TTCATGATATTGTTCAATGGGACGCCGACGCGCTAGGACCGTGGAGGCATCCCCGTGGCGCTACCAGTGCATATTTAT                      AGGGGGAAGGAGGAGGAAAGGAAGTGCACCGGTTCCCTTATTGGCCGCTCGAATGGCTGAAAGAATGCTCGAGTAT                      GTTGAAGTTAGTATCTGTAATCACCTTCATTCAGGGACTGGTAGTGCCTTCAGCAGATTATGCACCTATTTCCCTCCC                      ATTTTGTACTGTACCCTTAGCAATGGAACATTCAGTTGGATTGTTTCGTGTGTGTGACCTAACAAAGTTGGGTGTG                      GAAAAGCGCGCCCATGTTATTGTTTCACTGGAAGACCCTTATCCTACCAGCGGGCTCACAGTGTATCGGCACCACCGC                      TACCACAAAATGAAGCCA<b>CTGATGACTATAACGTTTCACTCTTGTTCGTACGAAATGTCTTGACGAAACTTATACTTCGTTT</b> TB3Cs1C1  <b>GGTTCTGA</b>GTTATTTATTCTTCCCTTCGCACCTATCATTCTGCACCCCTTATTACTCTTTCTGTTGGAACAATGATGT                      G</p>	<p>Tb3.NT.16 Tb3.NT.31</p>	<p>TB3Cs1C1</p>
<p>&gt;lcl Tb927_03_v4:1159436-1160156 No definition line found                      ACGGAACCTCTATTACAAGCTTACGCTGCCGATGGCCGTACAACCTTGAAGCTGATGCATTTGGCGTACCCTCAGCGTTTCC                      GTGCTCACCTTTATCCCCCCTCTCCACACCACCCACATGGCATAACATTTACACAACCGTTTGGCCATTAACCTTGTA                      CGCCTTCGCTTTTTTCTTTGTAACGCTGCGATGTTGACAAAATCGCGACAGCGGGGAGCACAGTTTTCCCTTCGAGGCAA                      AGCGCTAGATCCACAACTACCCGTTGTA<b>TAATGAGGGTCTAAGAGCTGGGGACCGGAACCTTTCCATGTTCTTCCAGT</b> TB3Cs2'H1  <b>GTCATTGCCCTCAGAGATCGAGAC</b>GTGCAACAACGAAAATTTGCGCTAAACATTTTAGTACCGCTGCCAGGAGGTGCCATC                      ACGAGGGAGCTCCCGAACACTTAAAGACTGCCGTGTCGGGGGAGGAAATGCAAAGCATCGCATAAATGAATCAAATAAC                      AATGCTGGTAATCGTGTCT<b>GCAGCAGAGATGTTGAGGGGCTTTGCTGCACGAAGTGTGGCCACAATAGCAAATACTG</b> TB3Cs2'H2  <b>CGCCATAGGTACTCTGCAAGAAAT</b>GAAGACACTCCCTCCCCCAAGAATATAAAAGAGTTTAAAGATGAGCATTTTTT                      CTTTTTTAAAAAAGCAGAAGCGACAATAATTAACAGCAAACCTGTGTCGGCATAGCCATTAGCAATCAACTACTCTT                      C</p>	<p>Tb3.NT.52</p>	<p>TB3Cs2'H1 TB3Cs2'H2</p>
<p>&gt;lcl Tb927_07_v4:1059609-1060315 No definition line found                      TGGTGAGTGGAGTGAACAGTTCAGCAAAACCTGCGTGACTTTTTCGTTGTAGAAAGTAAAAGAACGGGGACTCTAGGT                      ACAGTTTTTCATTTGTCGCCACTTCATGCTCATTTCTCAGAAAGGTCTGAATGATGCCCCATATGGATCATTGCTGCCCA                      CCGTCAGTGACGTAAGTGAATGCTCATTTCCGCTAAAGGGTTTTCCAACCTCCCTTTTCGGTTACCCCTTCCCGTTGTCATTG                      TCATAAATGTCATAGTTATTATAATTATTGTCATTACCTCCACTCTTTTTTGTGTTGCTTACGGGGGACGTCACGA                      ATGGGTAGTCAGTGCAGTCCCGCTTCAAGTCATAGGCCACCGTGGCGTTACCCCATTCGAAGAGCCGGAGTGGTCTA                      AAAAAACAACAACAACAACACCCGCTTTCGTGTGCACCGCCCTTACCCAGTCTGCCTACG<b>GTGATGAAAATAC</b> TB7Cs1C1  <b>ATGTATATGCTAACTTTCTGTACTCCATGGAGTGAGCATGAAGTGAATTAFCGCGAGAGAAGTCTGAAA</b>CGTTTTTAAA                      TCCCCCCTGTACTCTCTTCTTCTTGTGGTTTCCATCTCAGTACTTCGATGCTTGGTATGACACACGAATACTCGGTG                      TTACTCAGACGTGGTGACGAAGTAACGGATACTTTCTTTCATCACAGCGCTTGTGTTGTTTCTTT</p>	<p>Tb7.NT.42</p>	<p>TB7Cs1C1</p>
<p>&gt;lcl Tb927_08_v4:513118-513754 No definition line found                      GTAATTAGGTTTAAAGGCATGCCATAGCTCCTCACTTGGAGTCAACTTGTGATCCGTAGCATGTGGAGCGGGATGTG                      AGAGTCACACA<b>AAACGAGGGACATCGTCGGGGCTCTGATTCAACTTCTGTGGGGCCAAACCGAAACAACACCTTCGAAGA</b> TB8Cs4H2  <b>TAT</b>ACTTCGTTGTTGTTTTGTTGTTTACACAATATTGCTTTTTCTCCGTTACTTGGGCTAATAAGTTACCTGCC                      TGTACGTCGACCGCTACCTTTACGTGCACATTTCACTTCCGCTATGCGCACTTGCAAACTTACACTTATGTAGTA                      TATGTTACACGTTGCTTTTTGTTTCTTTCTTATTTCAGTGTGCTACACGATGGCTTCCAGCATATTTAACCT                      GGTACCTTTGGCAGTTAGTAAGGCCACCACCGATGCCAACCCCACTGCCTGAGGAGGGCTTTACTGATTATAAAAAA                      CAAAACAGGAGCAAGAAGGAACAAAATATTAGAAAGAAAGCGGCAGGAGGGGGGGAGGTGAGAGGAAAGAAAGATG                      GGAGTCTTAACCTCTGCGAGTATTAGTATCAACCTTTCTCATCGCTCTGAAAGGATTATGTTTTGCGGTGTTG</p>	<p>Tb8.NT.22</p>	<p>TB8Cs4H2</p>
<p>&gt;lcl Tb927_09_v4:615962-616620 No definition line found                      AGAACAAATATGTTAGTTCCCAACGGGCATGACTGCTTCCACTTGGGTTCCCTGAGGCGTGTGAGAGTGTGAGTGTGTAC                      AGCACAGAAAATGAAGCTAGTTATGGCGTACCCTGCTGCTCTAGTCCGACACTGTGCGAGATGCGTTATTTGTACCT                      TCCCCAGGAGTGTCTGCTTATGTTTAACTAATCCTTTCTTACCCTCTGTGCTTTCTTGATTTGAACCTACTCTCTCC                      CCTCCATGCATTCAAGGCAC<b>AAACACGGGCAATCCGAGGTCACTGAGCTTCACTTCGTGCCGATGATGCCTTCTGGTGG</b> TB9Cs1H2  <b>CTCCGGAGAAG</b>ATGTTGTTGGTCTGCTTCG<b>TGATGA</b>TCCCGCAACTGAGTGTACCTTTTTTTCAGCACTTTTCGTGCAATG TB9Cs1C1  <b>GAATGTAATGGCAGGTGCCCTCTTGTGTTGGTGTACTGATAGCAGATTTAACGGGAAACGTGCTGATATAGTTGCCTTC</b>                      ACTACAGTGATATCAACTTCTCC<b>GTACACTGAGAACCGCTATTAGCTCCCAACGGGTATGACTGCTTCCACTTGGGTTT</b> TB9Cs1H3  <b>CTGAGGCGTGTGAGAGTGTGAGTGTGTACAGCACAGAAAATGAAGCTAGTTATGGCGTACCCTGCTGCTCTAGTGCCG</b> TB9Cs1H1  <b>ACACTGTGCGAGATGCGTT</b></p>	<p>Tb9.NT.99</p>	<p>TB9Cs1C1 TB9Cs1H1 TB9Cs1H2 TB9Cs1H3</p>
<p>&gt;lcl Tb927_09_v4:1865684-1867813 No definition line found                      AATTAAGACAAAAGATTCAAGAGGCACAAGAAGTGGATATCACTGTTTATGATTGTGCTGGTTTTGTTTTCGTAAGCGC                      GTATACAAAT<b>TACTGATGATATAACACGATATTCAGGTAAGATATTCAGGAGTAACGACTGAGATAACATCATGCACC</b> TB9Cs3C1  <b>ACTCTGACCA</b>ATACTTCTCCCTACTGTGGTTATGGAATATGTTTCC<b>TCCATGATGCCATGACAAGACTATAAGAGCAC</b> TB9Cs3C2  <b>AGTTTGAAGTCACTTCAACAAGCGGACGAGAACCTGCTGCAATATTCTGATGA</b>TTGGAAGGCATATGGGTGAATATAT                      GTGACAGTGAA<b>GCACAATTTACACGGATTACCCCTGACTTATATTTTAAATGCCGGTGTATCCGCCAGTGTGTGCCAGA</b> TB9Cs3H1  <b>TAT</b>ATCAGCTGTTTCT<b>CTATGATGTTAAAAGAAGTTTTGTAGTAGGGTAAAATCTGACATCCGACCATGAAGGTACGAA</b> TB9Cs3C3</p>	<p>Tb9.NT.106</p>	<p>TB9Cs3C1 TB9Cs3C2 TB9Cs3C3 TB9Cs3H1 TB9Cs3H2</p>

<pre> TTTAAATGTGCTTTTCATGTGCTTCTGCTATTGTGGTTGCACAGAGGCGCTATGTCTGAGAAATTTCTATCTTTCTCCACTTC TTTACTTACTTTCTCTCTTACTGCTTTACTCCCACTAATTTTTAAATCGTTGTACAACCTGCTTGGTTCCAGTGGCC TB9Cs3H2 TCAGGTATTGTGGTGTGTTGGTGTATCCGCAATCACAGGTTTCAAGAGCCACAAGAAGTGATATCACTGTTTATGATTGT GCTGGTTTTGTTCGTAAGCGGTATACAATAACTGATGTATAACAGATATTCAGGTAAAGATTATCAGGAGTAACT TB9Cs3C1 GACTGAGATAACATCATGCACCCTCTGACCAATACTTCTCCCTACTGTGGTTATGGAATATGTTTCCC TCATGATGC TB9Cs3C2 CATGACAAGACTATAAAAAGCACAGTTTGAAGTACTTTCACAAGACGGAGGAGAACGTCGCTGCAATAATCTGATGATGG AAGGGCATATGGTGAATATATGTGACAGTGAAGCACAATTTACACGGATTACCCCTGACTTATATTTTTAATGCCGGTGT TB9Cs3H1 TATCCGCCAGTGTGTGCCAGATAATACAGCTGTTTCTCTATGATGTTAAAAGAAGTTTGTAGTAGGGTAAAATCTGA TB9Cs3C3 CATCCGACCATGAAGGTACGAATTTAATGTGCTTTTCATGTGCTTCTGCTATTGTGGTTGCACAGAGGCGCTATGCTGAG AATTTCTATCTTTCTCCACTTCTTTACTTACTTTCTCTTCACTGCTTACTCCACACTATTTTTTAAATCGTTGTTA CAACTGCTTGGTTCCAGTGGCCFCAGGTATTGTTGGTGTGTTGTTGCTTATCCGCAATCACAGGTTCAAGAGCCACAAGAAGT TB9Cs3H2 GGATATCACTGTTTATGATTGTGCTGTTTTGTTTCGTAAGCGTGTATACAATAACTGATGTATAACACGATATTCAG TB9Cs3C1 GTAAGATTATCAGGAGTAACTGACTGAGATAACATCATGCACCCTCTGACCAATACTTTTCCCCTACTGTGGTTGTGG AATATGTTTCCC TCATGATGCCATGACAAGACTATAAAAAGCACAGTTTGAAGTACTTTCACAAGACGGAGGAGAACGTC TB9Cs3C2 GCTGCAATATTCTGATGATGGGAAGGCATATGGGTGAATATATGTGACAGTGAAGCACAATTTACACGGATTACCCCTG TB9Cs3H1 ACTTATATTTTAAATGCCGGTGTATCCGCCAGTGTGTGCCAGATAATACAGCTGTTTCTCTATGATGTTAAAAGAAGT TB9Cs3C3 TTTGTAGTAGGGTAAAATCTGCATCCGACCATGAAGTACGAATTTAATGTGCTTTTCATGTGCTTCTGCTATTGTGGTT GCACAGAGGCGCTATGCTGAGAAATTTCTACTTCTTCCACTTCTTTACTTACTTCTCCCTTCACTGCTTACTCCCA CACTATTTTTTAAATCGTTTACAGTGCCTTGGTTCCAGTGGCCCTCAGGTATGTTGGTGTGTTGGCTTATCCGCAATCAC TB9Cs3H2 AGGTTCAAGAGGACACAAGAAGTAGATATCACTGTTTATGATTGTGCTGTTTTGTTTCGTAAGCGGTATACAATAATAC TGATGTATAACAGATATTCAGGTAAGATTATAATGAGTAAATGTAAT </pre>		
<pre> &gt;lcl Tb927_09_v4:1822081-1822986 No definition line found TAGTGTGATTAACATTTGTTTACAGTGCACGTGGATGTTATTGATGGCTCCCTTTTCGGAACGCACATCTCCCGATGG TTTTCTTTGCCCATTTTTCGCTCAACATTTTATTGCGAGTGTAGAGAACATGGAACATATGCACGTTTATATGATAAGGCA TB9Cs5C1 ACTTGATGACTTACACACGCTTCACTAAATATCGTACGAGCGATTACTGATCAACACTTCTATCTCCCTCTCTTTCCAG AATGTATATGCACGAGGAGTGTGTGTAATAATCTCTACCTCTGTTTTGTTTCTCACACACTCTCTCTATACCCCAA TTTGAGCGGTACACACATTTTGCATACATACGTACTGGGCACTGTGTTGGTGTGATGTTTTTTTTTAAATTTTGTCT TTGGCTCCTTCTGCCATTCCTTTATTTGCAAGTGCACATCTCACAAAGCCGGCTAAGAGTCAATCCCGTGGTCTTATC TB9Cs5H1 GTGTACCAGGTAATGTAGTAACTACGGCAAGATATATGCATACAGCCGATGTGTATGATGCACATTGGAATGCGTAT ATCCATAGACATTACAGTATGTGTGCTTGCATGTGTAAGGCATGATGACGAAACAATTTTGCACCTCAGTTTGAATTAG TB9Cs5C2 CAAAATGTGAAGATGAAATGACACAGCTATTTTATGGGCTGTCTGATCTCAGACAGACGTTTATAAGCGGACGCTTCT CTCCTTTCTTTTCAAGGGCGGAGTGTCTAAGGACATGTGACTTATAACAATAGTTTTTATGACTACCTTATTGGCCCTCCCT TTCTTTCCCTCCCTCTGCCTTGTCTTTTACATGTAAACACAAGCATGTTTATGTTATCATATAAATTAGCACTTATAT TTACTGTTTATGTGTGTTGATTGTT </pre>	Tb9.NT.105	TB9Cs5C1 TB9Cs5C2
<pre> &gt;lcl Tb927_10_v4:1728986-1731333 No definition line found TATATGTACCGTAGCACCAACGAATGCCACCACCCTTGTGAGAAATGATGAGATTGCCATCATACTATTGGAAGACGA TB10Cs1C4 GTCTGAACCCCTGATGCATTTTATCATGCGGCACTGACGATCTTACATTGCGGTTAGTTGTGATCCCTTTGCCCATGTGTT TTTGTATCTGCTTGCAGGAACGTGGCAGGCGCCGAGGTCACACTCGTGTCTGCGGTGGTTCAACAACATGTTCCAG TB10Cs1H3 TTGTAGGTTCTTTGTTACTGGTGTGTATGATGAGAAACCTATTTTTATGTAACCTCGGAGAACTGAGCATATTACCTGAT TB10Cs1C1  GAGTAAACAATCAATCGTTAGATAGTAGACTGATGTTA CCTCTGGTTTTATGTGTGTTGTAACCTTCCACTGTTGTC TA10Cs1H1 TTATCATCCCCCTTTAATAGCGAGTGGTCTTTGTGTGCATCTCCGCAAACCACTCGTCTACACCGGGGAAAGATAACGA GTGGAATGTTGTTAGTGTGTGTGCTGTGTCGCTACTAGTAAAGGATGATGAGGATGCGGCCACCCACGCGAGCT TB10Cs1C2 (MRP) GATGCGGTGTGTTGTTGACACTGCAGGCGTGTAGTTTCCCCTCCGCTGCCGTTGCAAAAGCAAACCAATTTTGGGCAACA TACGCAGCGCGCGCCACAAGACGCTCCACCGCTCGACGGGTGCCGCCATGACGCGGGTCCGAGCCAAAGTCCCTCG CCGAAATTTCCGAAGGAGTGTAGTCTGCTGCGGTGGGAGACCTGCGCGCAGTAAACCTCGTCCGCTGGCGGTGCGGGG GCCACCGGCTGTGGTGGTTGATCCCCTCTGGTGGATCCACAGCAGCAACTACGCGGGCCGTACTTTGCTGGTGCAGAGA CTCCCCACCCGTTGGTATGAAATGGCGGGCACCCTGAGTACAGTATAGCCATGAGCGGCATGTGCAGAAAGAGGGCTTAC AAAGGAGGACGCGGAGCGAGCGAATGGTAAACACTGGCGCGTGCAGAGAAAGCAGCATATTTACCGCATCCGTTTG CGGCGTGTGGTGGCACCCCGTACTGTCATATGCGTTCACATTCACCTCCTCTCTTTTCTCATTTTTTATCCCCCTAC TTGAGAACAGATAACAACCTACCCACCTTGCCATACCCCTTACACACCTATTATGATTGTACCTGCACCATCAGTGA TB10Cs1C3 TGAGCATCAATTCACATCGCGCACACCGATGATTCAAAATGAGTACGCTACGAAATGGAATAAATTAATTCGAGAAAGAA CAGCTGAGATGCTACGTGCTTGTGCGCTTGTGCTACTTCCCCTTGTAGTCCCCCTTCTATACCTGTGTCGTGCTCAT TCCATCTTAATCGAAGTGTGTTCTGTTCTGATGACAGCACTCATTTCAAGCTGCGCGAGCATAAGCGTGTGCTCCG TB10Cs1H2 TGGTCCGGTGACGTGCCAGACACCGCTCACACCTATTACTGTGATGGGTGCCACTAGCCTGTGTGAGAAATGATGATT TB10Cs1C4 GCCATCATACTATTGGAAGACGAGTCTGAACCCCTGATGCATTTTATCATGCGGCACTGACGATCTTACATTGCGGTTAGT TGTGATCCCTTTGCCCATGTGTTTTTGTATCTGCTTGCAGGAACCTGGCAGGCTACCGAGGTCACACTCGTGTCTGCG TB10Cs1H3 TGGTTCAACAACATGTTCCAGATTAGGTTCTTTGTTACTGGTGTGTATGATGAGAAACCTATTTTTATGTAACCTCGG TB10Cs1C1 GAGAAGCTGAGCATATTACTGATGAGTAAACAACTAATCGTTAGATAGTACACTGATGTTA CCTCTGGTTTTATGTGTG GTTGTAACCTTTCCACTGTTGCTATTATCATCCCCCTTTAATAGCGAGTGGTCTTTGTGTGCATCTCCGCAAACCACTCGT TACACCAGGGGAAAGATAACGAGTGGAAATGTTGTTAGTGTGTGTTGCTCTGTGCTTTGAGTTGCCCTCCGTTGTTCTTA ACCTCAGACTCTGCTCTTACAGTTTCCGGTTTTATCGTTTTTTTTTCTTTTGCCTTCATGTAATAATCTTTTTTTTTATCC TCTTGTGTGAACCTTGTACGGATGCTTTCCATCAGGTTACAACATAAGTGAAGTGTGATTTTTGTGATGTAATGGGTTT TCGCGAGTGCAGCTGGCCGTTGACCGGTTTTGATCATATAACGAGTACATTTAGCGCTTCATGATGTTTGTCTTGGCC GACGGTGTGGCACTGCAGAACGGACAAGCTAACGTATCTGTGCTATGTTTTTGTCTGTACGTGCATATAAGATTTGTTT ACCCGAGTTATATATTTGTTTGTGTT </pre>	Tb10.NT.18 2	TB10Cs1H1 TB10Cs1C1 TB10Cs1C2 TB10Cs1C3 TB10Cs1C4 TB10Cs1H2 TB10Cs1H3
<pre> &gt;lcl Tb927_10_v4:3810708-3811435 No definition line found ATATGTATACACACACACTCTCTCTCTCCGAATGCCAGGCTTTCTGTCTGTTCCGGTCCGTTGATTAGCAGTG TB10Cs3C5 </pre>	Tb10.NT.18 7	TB10Cs3C1 TB10Cs3H1





<p>CGCAATGAGGCCAAA <b>CGATGAAAAATAAATGGATCGCTGACTCTGAACACATTATCTGATTGACAGGACATTTCTTTGAC</b> TB10Cs2"C2  <b>TATACCTCTGAATT</b>GTGCCCCACTTCTCTCTCCATTCTCCCTCTTTCTGTTGGTTTCCCCCCCCCCCCCTCTGCTGCT  GCCACTACTATTCCCTCCAGGTGTCTATTGCTCCTGGTGCATTACCATTAACTGCGGTA<b>TGATTACAAAGCAATTTTATCC</b> TB10Cs2"C3  <b>TCACCCGTGACGTGAGTGGTTCTGTGACGAGAAACCGATTGACAATAATACCAAGATCTGCTATGAGCCCGTGATGTTGTG</b> TB10Cs2"C4  <b>TGCAGACGCTGTATTAATCCCGCCCCGATGGCAAACCTCATGCCCGGGCGATTTCATGCACAGCGGAGATGCGTATTGTC</b>  TCACTTCCCTTATCGTAAAGTCCACTTCTTTCTCTGTTGCGTGCCTGTTTCAAATGTACGCCCGCGGGTTTTGTGAAT  GAGGCTCCCCATTCGGTGTGTTGTCGGGTAATCTGGTTTTGTGCGTGGCGGGTGTGCGCTGCGTTTAGTAGACGTT  AACCGATGGAGTTGTTACAAACCCCCATTTATTCCGATTTCGCTATTCCGCAGGGCGGTGGTTTAGCTCTTCGAGCACAT  TTGT</p>		<p><b>2</b>  <b>TB10Cs2"C</b>  <b>3</b>  <b>TB10Cs2"C</b>  <b>4</b></p>
<p>&gt;lcl Tb927_11_01_v4:4208173-4208926 No definition line found  CTTCATAGTACGAAAATTTCTGAACCTTTGTTCGTTTCGGCGATCGTGCATCGCACG<b>TGTTGAGTGTGTGCGTGCCTGG</b> TB11Cs5C1  <b>GTGATGCTTTTTGTGGAACTCCAACCTGTACCTGCCGGGTGCGGGAACGAGATGCCCGGGAGCTGA</b>ATTCTCCCCCGC  TCCCTCTTTTTGCTCAACACCCACCAACCCAGCCCTTTCTGTGCGGTAGCTTGCACAATGGTGGCCAAAGTGTGGTGTG  AGATTTTTGGCGACC<b>CAAGCAGCATCAGTACAGCGGTGGTATCGCTAAGGCACCATGATACTTTCCGCTGGCGATGTGGC</b> TB11Cs5H2  <b>GAGATAC</b>TATCGGAGGT<b>TGCTGTTTTCTGCTTCCTTGGCTTTTTTCCCTCTATTTGCTGTTCTTTTCGCCTACAAAGT</b> TB11Cs5C2  <b>TCCCGCGGTGACCTGATGC</b>TTCCCTTAAGGTCAGTTCGAAGGCCAGTACTTGTACCATTGTAAGTGCAATGTGGTCA TB11Cs5H3  <b>AAAGCTGACCAAGATTTGTTAATTTGTGCTCATTGTGTGCATGAATGAGAAATGCTCTATCCGTTTCTGACATTTT</b>  ATTGG<b>CTCAACACCCACCAACCCAGCCCTTTCTGTGCGGTAGTTTTCCACAATGGTGGCCAAAGTGTGGTGTGAGATTTT</b> TB11Cs5H1  TGGTGACC<b>CAAGCAGCATCAGTACAGCGGTGGTATCGCTAAGGCACCATGATACTTTCCGCTGGCGATGTGGCGAGATAC</b> TB11Cs5H2  GTATCGGAGGTCACTATTGGAATTTTCATATTGG</p>	<p>Tb11.NT.20  1</p>	<p><b>TB11Cs5C1</b>  <b>TB11Cs5C2</b>  <b>TB11Cs5H1</b>  <b>TB11Cs5H2</b>  <b>TB11Cs5H3</b></p>
<p>&gt;lcl Tb927_10_v4:2872888-2873319 No definition line found  GACAGAATTATAGGTTCAATAACGGAAGGAAAGTTTGTGAATGCAGCAAAGGCAAGATATGTGAACGAGCTTCAACCACA  GAGGTGCTATAAATTTAGGAGGCTGCAGGGCCAAGCTGGCGCTTTCTCTTTCCCTAAGAGGAGAAGGGAGCGCTCCATGT  GACGCCAAACAAAAGTTCATTCACCTCCCGTTCGCATCCTGTGTGATTCCCTTTCTAACAAAACCGT<b>GCACGTGATGAGA</b> TB10Cs2"C1  <b>GTATGTTCTTTCTATATACTGATTTGTCCATTGAAGTACACAGATACATATTCATAGACTGTCGTTTTCCCTGACC</b>GCATT  TCCACCGTTTTCCCCCTCTTTGGATGGATTGATTCGATAAATCTTTCTGTTGTGGTCTTTTCCACACCCCTGCGTTACA  TGTACCATGCAGTTGCTGTTGAGCTGCATCG</p>	<p>Tb10.NT.13  2</p>	<p><b>TB10Cs2"C1</b></p>

**S-10. Summary of published snoRNAs found in the Kolev *et al.* 2010 dataset.**

Comparison between the published snoRNAs and the novel transcripts identified in Kolev *et al.* 2010, revealed several snoRNA clusters that are present in these polyadenylated transcripts. Each snoRNA is listed with its TB-sno identifier along with its corresponding identifier and sequence from the Kolev *et al.* 2010 dataset. The sequence of each snoRNA is highlighted within the novel transcript.



<p>GTGTACCAGGGTAATGTAGTAACTACGGCAAGATATATGCATACAGCCGATGTGTATGTATGCACATTGGAATGCGTATATCCATAGACATTACAGGTATGTGTGCTTGCATGTGTA  <b>CGGCATGATGACGAAACAATTTTGCACGTCAGTTTGAATTAGTB9Cs5C2</b>  CAAATGTGAAGATGAAATTGACACAGCTATTTTATGGGCTGTCTGATCTCAGACAGACGTTTATAAGCGGACGCTTCTCTCCTTTCTTTCAAGGGCGGAGTGTAAAGGACATGTTGACTTATAACAATAGTTTTTCATGACTACCTTATTGGCCCTCCTTTCTTTCCCTCCTCTGCCTTGTTCCTTTCACATGTAACACAAGCATGTTTATGTATCATATAAATTAGCACTTATATTTACTGTTTATGTGTGTTGATTTGTT</p>		
<p>&gt;lcl Tb927_10_v4:1823486-1824759 No definition line found  AAAATACTTTTCTTAGAAAAGGATCGCTTGTAAATGTTTCTGCCTGCTTTAACGCAAGAGCTCTAGACGTTCTTTTCTCCA  TCGTTGTTTTTTAGAACGACAGCTCTCCTCCGATGATTCAGAAGTCGGGAGTGAAGCTAAGTTATTTAAGTGTAGGTA  GACAGGACTATGGTAATAAACTCAGATGACGGCAATATGTAGCCGCTGCGGTTAATGTTAGTACCATTGTACAAAT  TCGTCCGCCCTCACATCCTTTTGTTCGATGGGTTTCGGAATTGCCCTTAACCGTACGCATCTGTATATGTGAATAC  GCGTGGTTGGGCATGTGTATAGGTGCCGTTCTTTACGGTTGCGGTGGTAAATGGCAGACAAGGGTTGATTTCCGG  TACCGCTGTGTACCTTACAATACTGGCGGTTGCTTAGTACATCAACCCGAGATTATTTTACGCTGAGCCCGCTTCTCT  CGTGATTGGGATAACCCTAATTTATCCCTCCTCTTACCCTTTCCATTTTACACGAATATATGTGTTTATATGGAT  ACAGATCCTCCTATTTAGTAATATTTCTGATGAGTTTCTGCCCTAACCCCTAACCCCTAACCCAAACGCTGCTGTA  CGCGGTGTGCTTCGTACGCATGTTGAATTCATGTTGGGATAGGAGTGGCACCACAAAGCGGCGTGAGATGACATGCGTT  TAACTACCGATGTGACTACGGCACCCTGAAATCTCTGATCTCACTGGAGCTCCCGGGCCGGCCGCAACTCCCTTT  TTTCTTTCCCTCCTTTTGTCTCTCTCTCTCTCCCATTTCCCTTTCCACACAGCTATACGTGGGCGTATTACT  GTGGCCTACTCAAAAGCAGT<b>TTTCTGGGCGTTAGATGCTTTACAATGGGCGTTCCATTTAATTTGATAGCTCCTAACG</b>  <b>CAAGTAAACACTGCGAGATT</b>CAACGCGAATGGTGGATGAAAGCAGCACATTTGTGCAAACGTGATTTCCCTCCGTTGTA  TGCGTTCAACACTTTAAAGAGGTGTTTGGTGACTTCCTCATCTTGTGCGCATGCCAATGTAACATCCCGTTATT  TTTATTTTTTTTATTTTGAAGCAGCAGTCGATACCGTTGCACGTGCGCAGATCAGTTGAAGTTCATCTCTTAACTT  TCCTCTGAATTTGTCGGTGGCTTCTGCTCTCGTTCTTTTATTTGTGTATGCTGTGTATACCCGAAGTG</p>	Tb10.NT.77	TB10Cs1'H1
<p>&gt;lcl Tb927_11_01_v4:2564137-2564659 No definition line found  GAGTGGCGTGTCTCAATCAAGTACTAGGAAAGTCACAGTAGCAATGGCCGCAACACAAAGGTACCGGTGCTGTTGGTA  GCGGCTCTATCAGACAGGCAATTAAGAATATTTATCGTTTGTGCGTATGTAAGAATTGCGAAGATTGGGTTGTCTGGT  GGTGGCTGTGACAGGGTTCCATTTTCCATTCGGTTCCTCTTTTCTTTTACCTTTGCT<b>TGAGTGGTTAAAAA</b>  <b>AAGGAACATGACTGGGGTCTGCTCTCTCCTTTTCATGATGGAAGGCCACGAGAATTC</b>GTAATTTTAAATTTAGTGCTT  ACCACCGTTGGCTCCGCTCTGTGCCATGCAAAAATACTCAGAGCTGTGTTGGTGGTGTCTCCATGTGTGTTTATACC  CTGGCATCATTGCGTTAAAGGTGTTTGGTTGCCGTTTCCCGTTCACACTTCCCGCTGTTATTAGTAGTGCTATTCCGCT  ATCGTTTTCTGTCTGTCGCACCTTTTATCGTTCGTTAACAC</p>	Tb11.NT.111	TB11Cs1'H1
<p>&gt;lcl Tb927_11_01_v4:3945635-3946258 No definition line found  TTGGAAGGAAAGCATAATGTTTGAATAGCCGTCGCTAGGAGCCCTCCCGGATGCATGTTGATTACCCCTGCAATGGGC  TACCAGTGTGTACAAAAGAGAAGCGGTGCCGT<b>GTGATGATATTAGTGATCTTTTGAAGTTAGCCCTTCAATCCGAGAGT</b>  <b>TB11Cs4pC1</b>  <b>TTCGTGATGGAATAACCGTTTATATTTGATTCTGAGATT</b>CTTTCCGATCTTTCTTTAAGTATTTGAAACTGGTTTGTCTC  ACATACTTACCCCTCTCGACCAGCTCTGCTATTCGCTTTATCTACTGTTTCCCTACATTCTGTCGGTGGCCCAACT  CCCTCTTGGCCCTGTTCAACGTGCC<b>TGTGTAACAGGGTGTGCTTGGCCGTTAGCTGCACCGTGTGATAGAGGTAGCGG</b>  <b>TB11Cs4pH1</b>  <b>AGATGATACTCCATGTACTTTGTCAAGTAAGAT</b>ATGATGTTATCATGTTATCTTGAAGTTAGCCCTTCAATCCGACAA  ATTTGTGATGGAATAACTATACTATGTTATTAGCTGAAGTCTTGAATCTTTCTTGTCTTCTCCCTTCAATTAATCAACCT  TGTTGCTGACTACTTTACTTTTGTTCGTACGGTTGCAGCACCATTGTTGCGTACGTATCTTTG</p>	Tb11.NT.187	TB11Cs4'C1 TB11Cs4'H1
<p>&gt;lcl Tb927_11_01_v4:4381385-4382100 No definition line found  TACGGATAGCAGAAAATGTAACAAGTACGTGAAGGAAGGAAAAGATAGTGAACCACGATCAATGCACTAAAAGAA  AAAAAATCCTCTCCCTTTTGTGTAAATCGGTGGTGGATGAAGGAAGTTAGGAGGTAATGACTTATGCACCCATTTT  CTCTACCGCTGTATGTGCGTGTAGCCTCTATAACAATAGTGGTGGAGCCCTTTAGATGCTAATAACAATCTCATCA  TTAAGGGTGCAAAAAGTGTGTTTATCGTATGTCGT<b>TTTGCTACGTGTGACTTCACAGGCAGTTAGTTGCCGCTGTGC</b>  <b>CTGAGTCATGTGAGAGAGATATT</b>CTGGTGGCTTAACCCGTCAGTTGCTCATCTTTTATCTGTTGGTGTGACAAAT  AGAATACATGTGGGATAAGATAACTCTTTGGGTGGATGTTGATCTATTAAGTCTTCTTACCTCTTCTGCAAGTTGT  GGTTACCGCAAAAGGTATAGTCGTGGTGTGATGAAGTCAATTTACAGCGGAGTTCATTTCCCTAAGTAAATATCCCTAT  TTTAAAGGGGAGCGGAACGACTTCCCTTACGGTCTCAGTAATGCAATGAACTAGTTTCCCTACCGAATAGTCGGAAGTCCCT  GTTTAGCATCTTTGCTGTGTGAAATGTTGACCCCTTCTCTCTTTTGCCTCTGTGACAGGGTAAATAAGT</p>	Tb11.NT.214	TB11Cs6H1

**S-11. Summary of newly identified snoRNAs found in the Kolev *et al.* 2010 dataset.**

Comparison between the newly identified snoRNAs in this study and the novel transcripts identified in Kolev *et al.* 2010, revealed several snoRNAs that are present in these polyadenylated transcripts. Each snoRNA is listed with its TB-sno identifier along with its corresponding identifier and sequence from the Kolev *et al.* 2010 dataset. The sequence of each snoRNA is highlighted within the novel transcript.

S-12

Sequence	Kolev <i>et al.</i> 2010, ID	sRNA
<p>&gt;lcl Tb927_01_v4:80586-84883 No definition line found</p> <p>CTCTATGCAAGAAGGAGGTGTAAGTTAAAAAACTTAGTTTTGAAGTGCCAAACATGTCCACTTCAGTACACCCATCA  CTAACGGAACTACAAATCTTCACAGAGTGGTGTAGTTTGTGTGGGAGTTTCCGAACTGACGGGAAGAGATGTGAATGTAC  GAAGTAAAAACGGGAAGATATCACCTGATGTGTTCTTTTGAATTTTATAAAGCAACGAGACACGATGTTACACATATG  GTCAAGTGAAGTATTGCACTACAACCTGTCAAATAAACAAATTTGCAGCAACTAAAGGGGAATAAATGCAACAACAGGTC  CCGGAAGCATGGAGTTGAGTGGTCTTTACTTATAGCATAACCAAAGCTTCACAAAGGAAACACCTTGAGAAACATTTCTAC  AATGGGAAAGTAAAAACGATGCAGGAGGAAGTACCTGAAAGGGGTGGAGAATAAAACGGTGCATCACTCTTTTTAAAAA  ATACAGTAGCCCTCAAAGCTGGGGACTCAAAGAATAATGGAGTGGCACCAGAGCACCTTTTACAACCAATAGTAAA  CTCATTTGGTGAAGGAGTTATAATAATAATTTATTTTATTTGAGTTCACACACAAAGCCATCCGTACATCATGGC  AATGGTTTCAGGAGCCAATAGAAATAGGAAAGTGAATGTGGCTGAGGACTAAAACATGTGAGGAACAGGGAAATTCATCATG  CGGTGTTTTATGCATTGGCGGAAAATCATTACCGCATTCCAGCATAGGATGTAAGTGCATCTTATTTGTGTTGTAAG  TTTACGACTCTCAGAGCAACGCCATTTTCAGTACAGGAGAACTTCCATCATCTCTATTGGACACACCCGACGCGGATG  TTGTTTTTGGGTCCGTCTTTACAATACGGTAACAGGTGAACCCATCAAACAACACACACATGTTGTAATGGTGATTC  GATAATATCTTTCAGGAAGTCCGTCCAGAGTGGTATCCAGTTGCAATATGAGTAGTGACCTGAATTACACCCAGCCATG  CGATGGCAAAAAGAAATACACAGCTCCGAAAAAAAAGAGAAAAATGTTATACCACACTCACACGGCAGGCAAGCCCTCAA  TAGTGGATTTTGGGGGAACCTTCAAAGAAATTCAAAAGCATACCACAGAGTCAACGATGCTAAATATCAACTGG  GAAAAGGATATTGCCAGTGTGAGAAAAGTCTAGGGAGGAACCTCTGGAGGAAAAGAGGAAAAATCATAGCCATTACCACA  AAAGGAAAAATGTGATACCATACTGAAAAGACCATACTGTAATGATAGAACATCCCATAAAGAGAAGAGCACTGCTGACAC  GCGCAGCGGCAGTAGTTGCAATGGAGCAGCAGATTGACAACATATTTATTAATACAAATGGGAAAGCACATCTACACAATG  GAACTCCAACGAAGCACAGTGGGTATCTCAGATATGTGACAGTGCCTGACGAACTGATTTTAAATGTTTTGAT  GTAAGATACAATTTGGAAGGAATGTGGCGCCCAAGTGTGAGGGAAGCCGGGACTTATAACCGTGAATAACTTTCCCAAAT  ATCGATTGCACAGCATTCTTGACACTCACAAGGAAAAACAAGGTGACCTCACGGGATGAGGAAAAAAAAGACTTCAC  CTCTCCAATAGGAAATGAATGTGGGAATGATTTCCCTTCCGTGGATTTGACAGAGGATGATGCAAGCAGCGAGTAAGCGA  TTTGTATGGGGTTGGAGCATTAAAGATAGCACAGATGATGCAAGAAACAAGAGAGAAAAGTATCAAAGAAGGAGTCA  GAATTCGCGCATTTGTAGAAAATGATGCCAAAATAATGAAGCAGCCGCGTATCATTGGCACAGTTTCAGAGAGACATATGAC  AGGATGAGTTATGTGCTATTTCTTTGTGATTTGGGGAAACACAGATTTTGAAGAAGGGCTTGATTTATGCAATGACCAAG  GCTAAAAAGAGCAGGGATGATTTATAGGCATATCTCCCATTTGGGTCACTTTTCCCACTATTTAAATACTCTCCATGACCA  GTCTGTAGCATTGTTTATCTAAAGTCACTCTCCAAAGTGAAGTTGCCTGAGGATGTTCCGCTGGAGTTCGGATGCC  TTAACTAAAATGAGGAACCTTTGCAATTCGAATTCGAACTCCCATCAGTTAATAAAGAGAACCTGGAGTTTACACACAT  CACAAGGCTCTTTTCAGGACATGCATCTCTCGTGAGGCTGCAGCAGGCGACCCCTGAAATATGAGGACTCAAACATGGA  TATGCAACATATTTATAGTGTGAGGCACATGACGTGGTTAAATGTCGTGAAAACAAAATAGTTACGAGCATGGAGGAAT  GTAGGCATACATCATTTGGTGATTTGCAAAAGATGACACAACAATGTGATTTTATTGGAGTTTTAGTTTAAACCATGAAA  AGCAGAGATGAGGATGGCTGGGACAAAGTACACAACAATTCGAGTATCCCTGCTATGTGAAAAAATCTACTATAGA  ATAAATGAAACTGTTGTATCATGCATGATGTACGTGGCAGCAGGAGTGAGAAAAACAATAGCTTTCTCCTTACTACTA  CTACTGCTACTTATTTTTTAAATGAAAGCCTGCATTTATGAATGGTTGTTTTGGACTTAGGAGTGCAGAGTATTTTGT  ACGGTTATATTTCTTAAACACACCTGTACTCCCGTTTATTTACACAGCTGTCTGCAAGAGAGTGAATTTTTAGAAA  CCCACACAACACACCTCTTTCCGCCCACAGGATGAGTTAAAGACGCTTTCAGACACTTCCGCTTCGTAGTAAAT  TATCGTTTTCAATTCATATTTTGGTGGATGATGAGGAAACCTTACTGTTTTTTCAGCATGATAATTTTTCGTATATCT  TTCTTGTGGGTAGTAAAAAGGGAAGGTAAGAATTAACCATTCATTTATTTGTTATTTATGCTGTTGAGAACTATGACTA  TGAGAGATGGCTTAGGGAAGATGTGTGAAATGCGTCACTATATACCTTTATGAAAGTGTGACGGTACAGAGCGATTCAA  ATAAATGAAAGTAAAGAAATAACGATTAAGTATTAAGTTTTCTCAGTTATTTTATGTTTGTGAAGTACGCTTATTT  GAATGAAATCCTCCGCTTGAAGGAAGATATTAACATTTATGATACCTTCACTTCACTTAACTTACCTTATTTGTATCGTC  TTACTTTAAATGGATGAAAAGATGTTTCATGCTGATGTTTAAACGCTTTTGCATGTCACATCTGATTATATATGATAAA  TATATTTATATATATTCATGAACCGGAAGAAATAAATAGTAGCGCGTCACTTTTGTCTCTCAAATATAAACATCGCT  AGACATTCATAGTGCAGAGTTTATAATCTGAAGTGAACACCAACATTTGAATATTTACTCATGCACTAATTTATTACAC  ACTTCATAGCATCAGAAATCGAATAATACTCGAAGTATTTATTTATTTGCTTGTGAGGCACATAACCGGTAAGCAGTAA  ATATTATGCCTTGCAGTATTTTATGAACTGGAGTTAATGAGTGTAGTGCTAACAAATCCTTTAGTTATATCACACG  CAATCTTTTACCATTTAATCTCTTTTTTTATTTTTCTTTGTTCTCTACTTGTCACTCAAACCTTTGTACAATAG  TTTATCCATGAGGAAGTTTATTAAGCTTTCAAACATGCTTTGATGTTGTTATTTCTGTTGTTTTGATAGAGGCATC  CGCGCTAATTTACTTTCAGGCGTCAGATATTTGGAATGAGAGTTAATGTTGTCAGCTGTGCTGTTATGTATATAT  ATATGCACAGAAACAAAATTAATCTGAGGAAAGCTGCGTAATATTTCTTGATTTTTTATTCTTACTTTTTAGAGAATA  ATATAATGCATATATTTGTTTGTGTTGTGCTGATTTGTTACAATTACATTTATCATTTCTACACACACACATACT  GAGTAAATATGGAATGATTTGTTAAGAAATGAGCAGATGTTGTTGTTATGTTGTTGTTGTTGTTGTTGTTGTTGTTGTT  GCGAATTATAATATGTTGTTAAATTTGTATCATATATTTGTGTTTTTATAAGTTTTCAAATTTATTTATGTTTCTATT  TTTGATTAATTTGTGCTTACATCACCAGTACCGTCTTTACTGTTTCCCTGTTTGAAC</p>	<p>Tb1.NT.4</p>	<p>TBsRNA-1</p>
<p>&gt;lcl Tb927_07_v4:749919-750430 No definition line found</p> <p>TTAGCTGAATTTCTGGTTTTTGGAGTTATCATGATGTACGTGCTGTAGCCGTGGCCATGTTGGCAATATTCTTCG  CAGCTTTAGTGTCTTTTTACGCGGTAAGTTATCTGCTGGATTCAGTTGCCACGAGCAACCGTGGAAATTTGGCAGTATTCT  GGGCTGATGCCCGGTGAGTCACTACGAGAATTCGTCGTGCTCGGAAGGAGGAATAACGATTATCATCCAACAGTGA  ATATGAGCGGTTGGTGGCGCTCAGGTGACACGGTTTGTTCGCAAGATTCTGCGCCGCGCTTATTTGTTTCCGATTGAG  CGCATATGCCGAGTTAGGTAATGTTCCGTTGGTGTGCTGTGGATCTACTGATGTGATCTGTTGTTGTTGTTGTTGTT  TTGAAGAACATTTTTTAAATACCTTATATTTGTTTTAAATCTCTCTTCCCTTTTTGTTACCTAATGTGGCCGTAAG  CATCCTTAATTAATATTTTGGTTGCCATTGTT</p>	<p>Tb7.NT.25 Tb7.NT.26</p>	<p>TBsRNA-14</p>

<p>&gt;lcl Tb927_07_v4:762590-763210 No definition line found  AGCTGAATTTTCATGGTTTTGGAGTTATCACATGATGTACGTGCTTGTAGCCGTGGCCATGTTGGCAATATTTCTTCGCA  GCTTTAGTGCTGTTTTTACGCGGTAAGTTATCTGCTGGATCAGTTGCCACGAGCAACGGTGGAAATGGCAGTGATTTCTGG  GCTGATGCCCGGTGAGTCACTACTACGAGA<b>GTTCGTCGTGCTCGGAAGGAGGAATAACGATTATCATCCAACAGTGAAT  ATGAGCGGTTGGTGGCGCCTCAGGTGACACGGTTTTGTTCGCAAGATTCGTGCCGCCCGCTTATTTGTTTCCGATTGAGCG  CATATGCCCGAGT</b>AGGTAATGTTCCGTTGGTGTGCTGTGGATCTACTGATGTGATCTGTTGTTGTTGTTGTTTT  GAAGAACATTTTTTAAATACCTTATATTTGTTTTAATCTCTCTCTAGTTTTCGTTACACTAATGTGGCCGTAAGCA  TCCTTAATTAATTTTTGGTTGCCATTGTTAGGTGCTCCGCACTTATGTTTACTGTTGGTAATGAAACTATTTCTCTTA  TTATTATTATTCTTTTTCTATCCCTTGGCCTTACCATTATCTTTTTTTCTTACTTT</p>		
<p>&gt;lcl Tb927_08_v4:1762415-1762818 No definition line found  ACATTAG<b>AACACACAATGGGGACCATCAGCCGCCCTGGAGGGATGCGGCCTAAGTGGCACAGAAGCGCATAAAGCGCTT  AAAGCGCCGACGACGACGATGCGCCAGCGCTCCAAGTAAGCGCCCTGATGCATCCGTGAACATTCTCGTGGTGGCGTT  CAGTGCTCCTTTTTTGGCAGTTTCGCACGCCGAACCTCCGATCAACGAAACGCATGCACATGTGCGTGCAACCTATTTAT  GGGTACGGAAACAAAGCATTGATGCTTCCGCCCTTTTTTCGTGCTCAGTTACCTTTCCATTTTCTACTTCTAGAGT  GGAAACAAGTGTCAATGTTTTCTTCCCTTTGGAGGTATGCCTGTGCTATAATGTTCCCTTCTTATATTATGTCTTGGC  CCTC</b></p>	Tb8.NT.93	TbS RNA-15
<p>&gt;lcl Tb927_08_v4:1762963-1763379 No definition line found  CATTAG<b>AACACACAATGGGGACCATCAGCCGCCCTGGAGGGATGCGGCCAAGTGGCACAGAAGCGCATAAAGCGCTTA  TbS RNA-16  AAGCGACGACGACGACGATGCGCCAGCGCTCCAAGTAAGTGGACAGTCAACCGCTGAACGATCCCGC</b>GGTFCGCGCGAA  <b>T</b>CAGTGTGCTCAGTGTCTTGTGCGGCATGGATT<b>CGTGGCAGGGGAAACACCCAAGTGTGTA</b>TTACCCCTTATGATTTG  <b>TbS RNA-17</b>  TTCCTTTTTTTTTCTTCTGTTTTGATACGCCGAGGAGCGGCCCTTTTTCCCGTGTGGTTGTTCTTTTTGTTAGCGCT  CTCCTTCAATACTGCGTGGTGTCTGTTACCGTACGGCAGTAACCATCTCGGGGGCGGGGGGGGGTCCCTTTTTCC  AAGCTCACCTCACCG</p>	Tb8.NT.94	TbS RNA-16 TbS RNA-17
<p>&gt;lcl Tb927_08_v4:1763474-1764050 No definition line found  TCTAGTCAGAAAGGTGA<b>AGGATGGGGACCATCAGCCGCCCTGGAGGGATGCGGCCAAGTGGCACAGAAGCGCATAAAGC  GCTTAAAGCGCCGACGACGACGATGCGCCAGCGCTCCAAGTAAGCGCCCTGATGCATCGAAAAGAGGTGCAATAAAGCG  CGCTGCGCGCCCGCTCGCGCCCG</b>CGTTTTGTCGATACCTGGTTCGTAAGTGGCACAGAAGCGCATAAAGC  TGTCTGGGAAGCGCTTAGGAGGGCATCCGATTGTACCGTTTCAAGTTTTGGTGTGCTTCTCTCTACTACTAT  GTTTTGCTCCTTCAAGTTTTTCCCTCTCATCTTTGCTCCCTTTTTGCGAGGCTCCTGCAATTGGAATGGCTACGAGGT  TTTGGAAAGAGGTCACTGCCAGAGGATGGGGGAAGAAGTCTAAAAGTAATCAGGGGAAAAGACAGCAGCAAAAAAACA  TAACGGAATGTCTGGGTGAGTTGAGGCCCTCTCGGGTGCAGCCACAGTCACTCTCTGGCTGTCTGTTTTTTTTTTGT  TTCGATTCTCTCGCTAC</p>	Tb8.NT.95	TbS RNA-18
<p>&gt;lcl Tb927_10_v4:1823486-1824759 No definition line found  AAAATACTTTTCTTAGAAAAGGATCGCTTGTAAATGTTTCTGCCTGCTTAAACGCAAGAGCTCTAGACGTTCTTTTCTCCA  TCGTTGTTTTTTAGAACGACACGCTCTCCTCCGATGATTCAGAAGTCGGGAGTGAAGCTAAGTTATTTAAGTGTACAGTAA  GACAGGGACTATGGTAATAAACTCAGATGACGGCAATATTTAGCCGCTGCGGTTAATGTTTAGTACCATGTACAAAAT  TCGTCCGCCCTCAGTTCTTTGTTTCGATGGGGTTCGGAATGGCCCTTAAACCGTACGCATCTGTATATGTGAATAC  CGGTGGTTGGGCATGTGTATAGGTGCCGTTCTTTACGGTTGCGGTGGTGAATGGCAGACAAGGGTGTATTTCCGG  TACCGCTGTTACCTTACAATACTGGCGGTTGCTTAGTACATCAACCCGAGATTATTTTCAGCTGAGCCCGCCTTCTCT  CGTGATTGCGATAAACCACTAATTTATCCCTCTCTTACCCTTTCCATTTTTACAGCAATATATGTGTTCATATGGAT  ACAGATCCTCCTATTAGTAATATTTCTGATGAGTTTCTGCCCTAACCTAACCTAACCCAAACGTAACGCTGCTA  CGCGGTGTGCTTCTGACGATGTTGAATTCATGTTGGGATAGGAGTGGCACCACAAAGCGCGTGAAGTACATGCGT  TAACTACCGATGTGACTACGCCACCCACTGAATCTCTGATCTCACTGGAGCTCCCGGGCCGCGGCAACTCCTTT  TTTCTTTTCCCTCTTTTTGTTCTCTCTCTCTCTCCCTTCCCTTCCACACAGCTATACGTGGGCGTATTACT  GTGGGCACTACTCA<b>AAGCAGTGTCTTGGCGTTAGATGCTCTTACAATAAGGGCGTTCATTTAATTTGAGTCTCCTAACG  CAAGTAAACACTGCGAGATT</b>CAACCGCAATGGTGGATGAAAGCAGCACATTTGTGCAACCGTGAATTTCCCTCCGTTGTA  TGCGTTCAACAACCTTAAAGAGGTGTTTGGTGAATCTCTCTGTCGCGATGCCTAATGTAACATCCCGTTATT  TTTATTTTTTTTATTTTGAAGCAGCAGTGCATATCCGTTGCACGTCGCACGATCAGTTGAAGTTCATCTCTTAACTT  TCCCTCTGAATTTGTCCGTCGCTTCTGCTCTGTTCTTTATTTGTTGATGTGTGATACCCGAAGTG</p>	Tb10.NT.77	TbS RNA-21
<p>&gt;lcl Tb927_10_v4:3228053-3228620 No definition line found  TCGCTCAAGTCTTCTGGATTTCCTCCCGGGGAGAAACTAGCGGTGCCATTCACGCTTGCACGGCCCA<b>AGCCTGCA  GCGGTAAGCACTTTTCTTTAGCTCACATTCGGGGATAGAGGGTCTTAGTCTAATTTGGGCAAGAACA</b>GAGAGGGTACA  ATGGGTTTCTTCGACTCTGACCTCAGCTACCCACGGTGGCAGCAGAGCGCATGAAGCACAAGCCGCTCGTCTTGTGCA  GGGCCCAATTCATATTTTCATGGACGTCAAGTGCCTCCGATGCAAGAACAATCACTGTGGTATACGCCATGCCACGCTCAG  AGGTTAAGTGAATGGTTGCGTACCATGCTCTGCCGCCCACTGGTGGTAAGGCAATCCTGGTAACTGGCTGCGGATTC  CGCAAAAACAGATCATTAAAGCAAGGTACAGATGGGCTTTCACCGGATTTGGCGTCGTGAAGCAGATGTAAGCTATT  TTCCCTGGGATTCGAATGGAATGAAAAGCAAAATTTCTGTTTTCTTTTTTTTTTGGCGTCTATAGCAACTCATCTAC  GCCTCTC</p>	Tb10.NT.77	TbS RNA-22
<p>&gt;lcl Tb927_06_v4:226530-226986 No definition line found  GGTCTCTGCCTTTAATTTGTTGGATGAGCTATTTCAATTAATTTTTTGCTTCTCTTTTTGGGTTGCAATAATAGT  TCCTTCAACCTTACGGCCAGAAATGGGAACAAGTGTAGACCGCCAATTTGGCGAAGGGGCTGCAATGTTGCTTT  ATTTCAATGGTGGTTTTATGTGCAAGT<b>TCCCTGCTTCAGATGGGCCCGCAGCTGAAGTGTGTTTCCGCTGCCCTGCCCC  C</b>CACTGCTGCGTTGCTGCTGGAGAAACGATGTTGGAGGTTGACGGGTGTGTGCTTTTGAAGACTTTGTATGAATATGGAA  <b>GGAGCTCGCAGCGGTTACTACAG</b>GCAGTTAAGGGCTGAGTGTGCTTCTTATTGCTCTCCCTCTTGGAGTAT  TCTTGTGGGAGAGTATTTATATATCCGAGTTTCGGTTAATTTGCCCTTAGGGATG</p>	Tb6.NT.31 Tb10.NT.118	TbS RNA-23 TbS RNA-23

<pre>&gt;lcl Tb927_10_v4:2480293-2480653 No definition line found TTCCTTCTAAACCTTCAGGCCAGAAATGGGAAACAAGTGTTAGACCGGCCAACTTGGGCGAAGGGGTCTGCATTTTGCTT TATTTTCATTGGTGGTTTTATGTGCAGTGT<span style="background-color: yellow;">TTCCCTGCTTCAGATGGGCCCGCAGCTGAAGTTGTTTCGCTGCCCTGCC</span> <span style="background-color: yellow;">CCCAC</span><span style="background-color: yellow;">TGCTGCGTTGCTGCTGGAGAAACGATGTTGGAGGTTGACGGGTGTGTGCTTTTGAAGACTTTGTATGAATATGGA</span> <span style="background-color: yellow;">AGGAAGCTCGCAGCGGTTACTACAG</span><span style="background-color: yellow;">GCAGTTAAGGGCTGAGTGTGTGCCTTTTCTATTGCCTCTCCCCCTTTGAGCTA</span> <span style="background-color: yellow;">TTCTTGTCCGGAGAGTGATTATTTATCCGAGTTTCGGTTA</span></pre>		
<pre>&gt;lcl Tb927_11_01_v4:4133914-4134707 No definition line found TGGTTACGTATATATATATATATATATATATAGCACATTCCTCCACAAAGATCTATATATGTTGTGTTTTGGATTACT GTTTGGAAATGCCTCCATGTGCGCTGCCGTGTTTACTTTGTTTGTGTACCTCCCCGTAGTTAGGCACCTTCTTGCCATGAC ATCATAGCAACTTGTGCTGCATCCACCCACTGAGGTATAATTCAGATCCACATCCTTATTGCGTTCAGCGCCTTCATTA TTTGAGTAGTGGGAAGCTGCTGTATTAGTTGGGTGAGGGGATACGGATCTGTTTTCCGCTTTCCCTATTGTCATGTGAGT CACACAACCTCACTTTTCTCTTCTACATCGCCACACTCTTCTATCTTTTTGGACCCCTTTTTTCGTATCCGGATTA TTCGGTTT<span style="background-color: yellow;">CTAATCCAAGACTTACCCATGTTATGGTTTTTGTGGTTTTGCTGACCGAAGAGAGTG</span><span style="background-color: yellow;">AAGTGGTTATGCTGT</span> <span style="background-color: yellow;">GTGTGTCGCTTTTCATGTAGCTGTTGCTGTGCTTCTCTTGATACCCCTTTGTA</span><span style="background-color: yellow;">CTTCA</span><span style="background-color: yellow;">TATATATATACGTGTTGTGTAAT</span> <span style="background-color: yellow;">TATTACTACTGCCGTCGGTGATACCGGTTAATGAACGCTCTTCCAAAATACGTGAATGTGCTTCTTTTTCTAGTTTAA</span> <span style="background-color: yellow;">TCTTTTTGTGATATTGTTCA</span><span style="background-color: yellow;">GTTTTTCGTA</span><span style="background-color: yellow;">ACCCCTGCTGTTTATA</span><span style="background-color: yellow;">ACGTA</span><span style="background-color: yellow;">ACTTTTGTG</span><span style="background-color: yellow;">CGCTCTCT</span><span style="background-color: yellow;">CTATTGTC</span> <span style="background-color: yellow;">TGTCTCGTCAGTTCA</span><span style="background-color: yellow;">ATTCTTACTCGCAGTAACGTTTTTCCCTCCTTTTGGCTGCAGGCAACAAGATTTG</span></pre>	<p style="background-color: yellow;">Tb11.NT.195</p> <p style="background-color: yellow;">Tb11.NT.197</p>	<p style="background-color: yellow;">TBsRNA-25</p> <p style="background-color: yellow;">TBsRNA-25</p>
<pre>&gt;lcl Tb927_11_01_v4:4140700-4141266 No definition line found TGGTTACGTATATATATATATATATATATATAGCACATTCCTCCACAAAGATCTATATATGTTGTGTTTTGGAT TACTGTTTGGAAATGCCTCCATGTGCGCTGCCGTGTTTACTTTGTTTGTGTACCTCCCCGTAGTTAGGCACCTTCTTGCCA TGACATCATAGCAACTTGTGCTGCATCCACCCACTGAGGTATAATTCAGATCCACATCCTTATTGCGTTCAGCGCCTTCA TTAATTTGAGTAGTGGGAAGCTGCTGTATTAGTTGGGTGAGGGGATACGGATCTGTTTTCCGCTTTCCCTATTGTCATGT GAGTCACACAACCTCACTTTGCTTTTTCTCTACATCGCCACACTCTTCTATCTTTTTGGACCCCTTTTTTCGTATCCGGA TTAATTCGGTTT<span style="background-color: yellow;">CTAATCCAAGACTTACCCATGTTATGGTTTTTGTGGTTTTGCTGACCGAAGAGAGTG</span><span style="background-color: yellow;">AAGTGGTTATG</span> <span style="background-color: yellow;">CTGTGTGTGTCGCTTTTCATGTAGCTGTTGCTGTGCTTCTCTTGATACCCCTTTGTA</span><span style="background-color: yellow;">CTTCA</span><span style="background-color: yellow;">TATATATATACGTGTTGTG</span> <span style="background-color: yellow;">TAATTAT</span></pre>	<p style="background-color: yellow;">Tb11.NT.185</p>	<p style="background-color: yellow;">TBsRNA-26</p>

**S-12. Summary of novel sRNAs found in the Kolev *et al.* 2010 dataset.**

Comparison between the novel sRNAs identified in this study and the non-coding RNAs identified in Kolev *et al.* 2010, revealed several sRNAs that are present in these polyadenylated transcripts. Each sRNA is listed with its TB-sRNA identifier along with the its corresponding identifier and sequence from the Kolev *et al.* 2010 dataset. The sequence of each sRNA is highlighted within the novel transcript.