

Comments on: “A comprehensive repertoire of tRNA-derived fragments in prostate cancer”

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We evaluated the deep-sequencing (RNA-seq) data from human prostate tissue that were reported in [1] and the tRNA-derived fragments described in the original analysis. Our study of the same RNA-seq datasets reveals a considerably different pool of tRNA fragments, many of them with higher abundances than the fragments reported in [1]. We also evaluated the q-PCR approach proposed in [1]. As the approach lacks 5'-endpoint specificity, it will not estimate correctly the abundance of many of the tRFs that are present in the sampled RNA populations from human prostate tissue.

tRNA-derived fragments (tRFs) represent a new class of small non-coding RNAs that has been receiving increasing attention in recent years [2]. Several groups, including ours, have been reporting on the tRFs' involvement in important processes such as inhibition of translation, RNA silencing, targeting of methylation, proliferation, promotion of metastasis, etc. [3-6]. A recent report by Olvedy et al [1] leveraged deep-sequencing data to generate and report a profile of tRNA fragments from 11 sources of human prostate tissue: formalin-fixed paraffin-embedded (FFPE) samples, and fresh frozen samples from normal adjacent tissue, benign prostatic hyper trophy group, and eight categories of prostate cancer (PCa).

Many of the reported tRFs receive low or no support from the available RNA-seq data or map to non-tRNA sequences

For each of the 11 sources, RNA from 3-4 samples was extracted, pooled, and deep- sequenced. After adapter removal and quality-trimming, Olvedy et al mapped the sequenced reads while allowing mismatches on a composite database comprising the mature human cytosolic tRNAs from the gtrNAdb database, and the 22 human mitochondrial tRNAs, and reported 598 tRFs [1]. However, based on the data included in [1], 29 of the 598 reported tRFs received either zero support or support by a single read only; these are listed in Table 1, which is adapted from Supp. Table 3 of [1].

In [5, 7] we discussed how exact mapping, i.e. mapping without indels or mismatches, assists in better tackling the cross-talk that results from the fact that near-similar nucleotide segments are present in multiple isodecoders of the same anticodon, in different isodecoders, or even in non-tRNA sequences. Using the method that we described in [5] we mapped the RNA-seq data of [1] anew and found that 192 (32.1%) of the originally reported 598 tRFs do not receive any support when indels or mismatches are not permitted during mapping (Table 2).

To avoid reporting as tRFs molecules that have non-tRNA origins, it is also important that reads be mapped to the *entire* human genome [5, 7], and not to the tRNA space alone as was

done in [1]. In Supp. Table 1, we list 63 tRFs among the 598 reported in [1] whose exact copies can also be found at loci that are neither tRNAs nor any of the hundreds of partial tRNAs permeating the human genome [5, 7] and include repeat element sequences L1, L2, ERV1, ERVL, Alu, hAT-Tip100, etc. Among these 63 tRFs, tRF-125, tRF-171, tRF-298, and tRF-376 have characteristically high numbers of exact copies inside these non-tRNA categories of repeats.

The generated RNA-seq datasets support numerous abundant tRFs that were not reported

We used a thresholding scheme that was adaptive and stringent, keeping from each dataset only the 3% most-abundant short RNAs among those reported by the method of [5] that carries out exact mapping on the full genome. The tRNA space is the same as the one used by Olvedy et al in [1]. At this stringent threshold setting, the RNA-seq data of [1] support 3,341 tRFs of which only 183 are among the originally reported collection of 598 tRFs. Curiously, most of the remaining 3,158 tRFs (94.5%) that were not reported in [1] are more abundant than the ones that were reported (Supp. Table 2) and present in at least two or more of the 11 datasets (Supp. Table 3). Of the 3,341 tRFs, 2,207 map exclusively to tRNA space whereas 1,134 map both inside and outside tRNA space (Supp. Table 2). Table 3 below lists the top-20 most abundant tRFs (in terms of the number of reads that support them) for each of the 11 RNA-seq datasets; the complete list appears in Supp. Table 2. Table 4 shows the 195 of the 3,341 tRFs that appear in all 11 of the analyzed datasets: of these, only 37 were reported in [1] – see also Supp. Table 3.

Many of the tRFs in prostate cancer have sequence relationships that hinder their quantification with conventional q-PCR

Olvedy et al proposed using custom-made locked-nucleic-acid (LNA) primers to quantitate select tRFs. The LNA technology, as practiced in [1], can only guarantee the 3' termini of target RNAs; thus, it is appropriate for quantifying 5'-tRFs whose 5' do not require confirmation. However, it cannot guarantee that the correct molecule is quantitated in the case of CCA-ending 3'-tRFs, or, in the case of fully-nested tRFs that have identical suffixes. For example, tRF-185 **CAGTCGGTAGAGCATGGGAC** from [1], which receives 98 reads (stringent mapping) in the LN_PCa dataset, is fully contained in and cannot be distinguished via LNA q-PCR from **GCCCGGCTAGCTCAGTCGGTAGAGCATGGGAC** that is also present in the LN_PCa dataset and receives 4,332 reads (44x more support) – all shown sequences are listed in 5'→3' orientation. Of the 3,341 tRFs that are identified under stringent discovery conditions, 1,627 (48.7%) form 414 groups each of which contains 2 or more fully-nested tRFs with identical suffixes

(Supp. Table 4); for the reasons mentioned above, these tRFs cannot be quantitated using the LNA approach of [1]. Table 5 shows a characteristic example of 20 nested tRFs, from among the 3,341 discovered ones, all of which share the suffix CCGGCTCGAAGGACCA. The complete list of nested tRFs in the profile human prostate cancer data and the corresponding groups is shown in Supp. Table 4.

NOTE: the properties of the various tRFs discussed in [1] and of the tRFs that are reported in the Supplemental Tables in the context of the above Discussion can be verified interactively by accessing MINTbase [6] at <http://cm.jefferson.edu/MINTbase>.

Competing Interests

All authors are actively involved in tRNA research and/or have published previously in this area. The authors declare no competing financial interests.

Authors' contributions

RM, IR and PL carried out the described analyses. IR, RM, YK, AGT and PL wrote the commentary. All authors read and approved the final manuscript.

SUPPLEMENTAL MATERIAL

Supplemental Table 1.xlsx

Description: Examples of 63 tRFs from the collection of 598 reported in [1] that have instances in repeat elements that are neither full-length tRNAs nor partial tRNAs.

Supplemental Table 2.xlsx

Description: List of all the tRFs that are present in the 11 RNA-seq datasets of [1]. The discovered tRFs are reported separately for each dataset.

Supplemental Table 3.xlsx

Description: For each of the 3,341 tRFs we discovered in the 11 RNA-seq datasets of [1], the Table shows the number of different datasets in which each tRF is present.

Supplemental Table 4.xlsx

Description: A list of tRFs that cannot be quantitated with the LNA-based approach of [1]. The Table lists 414 groups comprising 1,627 of the 3,341 tRFs that were discovered in the 11 RNA-seq datasets of [1]. Within each group, tRFs are fully-nested in various combinations while sharing identical suffixes.

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Table 1. Some of the reported tRFs receive very low or zero support. The below table comprises rows sub-selected from Supp. Table 3 of [1] and shows that 29 of the 598 reported tRFs received very low or zero support in each of the 11 profiled datasets. Counts are in raw reads. The first column lists the tRF labels as they are used in [1].

tRF No	tRF sequence	NAP	BPH	PCa6_c ur	PCa6_r ecur	PCa7_r ecur	PCa8_r ecur	TURP_P Ca	LN_PCa	PCa6_n ofu- sion	PCa6_T ERG	FFPE
tRF-33	ACTTTTAATCTGAGGGT	0	0	0	0	0	0	0	0	0	0	0
tRF-197	CATGGGTTGAGCCCCACGT	0	0	0	0	0	0	0	0	0	0	0
tRF-299	GCATTTGACTGCAAATCAAGA	0	0	0	0	0	0	0	0	0	0	0
tRF-443	GGTTCCATGGGTTAATGGT	0	0	0	0	0	0	0	0	0	0	0
tRF-472	GTCCTCTGTCGGCTAGTCGGT	0	0	0	0	0	0	0	0	0	0	0
tRF-474	GTGGGTTCGAATCCCA	0	0	0	0	0	0	0	0	0	0	0
tRF-574	TGACTGCAGATCAAGA	0	0	0	0	0	0	0	0	0	0	0
tRF-20	ACCACTTGGACTCTGA	0	1	0	0	0	0	0	0	0	0	0
tRF-54	AGATCAAGAGGCTCTGGTTC	0	0	0	0	0	0	1	0	0	0	0
tRF-74	ACCGCGTCTGACTCCAGA	0	0	0	0	0	0	0	0	1	0	0
tRF-75	ACCGCTTGGACTCTGA	0	1	0	0	0	0	0	0	0	0	0
tRF-80	AGGATTCAAGCGCTCCCA	0	1	0	0	0	0	0	0	0	0	0
tRF-87	AGGATTGTTGGCTCTCA	0	1	0	0	0	0	0	0	0	0	0
tRF-95	AGGGGTGTTGTTCTCGCT	1	0	0	0	0	0	0	0	0	0	0
tRF-102	AGGTCCCTGGTTCAATCC	0	0	0	0	0	0	1	0	0	0	0
tRF-172	ATTAGGCTCCAGTCTCT	0	0	0	0	0	0	0	0	0	0	1
tRF-175	ATTGACTGCAGATC	0	0	0	0	0	0	0	0	0	0	1
tRF-187	CAGTCGGTGGAGCATGG	1	0	0	0	0	0	0	0	0	0	0
tRF-243	CGTGGGTTGAGCCCCATGT	0	1	0	0	0	0	0	0	0	0	0
tRF-286	GATCCCCGTACGGGCC	0	1	0	0	0	0	0	0	0	0	0
tRF-381	GGGATTGCGCTCTCA	0	1	0	0	0	0	0	0	0	0	0
tRF-428	GGTGGTTAGGATTGGC	0	0	1	0	0	0	0	0	0	0	0
tRF-476	GTGGGTTCGAGCCCCA	0	1	0	0	0	0	0	0	0	0	0
tRF-573	TCTTGCGGACGTGGGT	0	1	0	0	0	0	0	0	0	0	0
tRF-595	TTGGTGTTCGATCCC	0	0	0	0	0	0	1	0	0	0	0
tRF-156	ATCTGAGGGTCCAGGGTT	0	0	1	0	0	0	1	0	0	0	0
tRF-217	CGAGCGGTCTAAGGCAC	0	0	1	0	0	0	1	0	0	1	0
tRF-230	CGTAAACAGGGAGTCCT	1	1	0	0	0	0	1	0	1	0	0
tRF-410	GGTAGAGCAGAGGACTAT	0	0	1	0	0	1	0	1	0	1	0

Table 2. tRFs that do not receive support under exact mapping. A list of 192 tRFs from [1] with length of 16 nucleotides or longer that receive no support when exact mapping (no indels, no replacements) is used. Preceding each tRF is its label (e.g. tRF-1, tRF-191, tRF-403, etc.) as introduced in [1].

tRF-1	AAACCTGTTAGCTGTCT	tRF-191	CAGTTGGTTAGAGCGTG	tRF-403	GGGGTCTGAGTCATAATCTC
tRF-2	AAATCTCGCTGGGCC	tRF-195	CATGGGCTCTAGAGCCAGACT	tRF-408	GGTAAGCATAGCTGCCT
tRF-3	AACAGGAGATCCTGAGTT	tRF-196	CATGGGTTCTGCCCCA	tRF-409	GGTAATTGATCAAACCTTA
tRF-7	AACTTACAATCAGAGGTTCA	tRF-197	CATGGGTTGAGCCCCACGT	tRF-410	GGTAGAGCAGAGGACTAT
tRF-12	AAGTCTCTGTTGGGC	tRF-201	CCCCGGGTTCGATCCCCGGCACCTCC	tRF-412	GGTAGAGCAGCGCTGCTTAG
tRF-17	AATGCCAGGGTGTGAGTCGAGCC	tRF-203	CCCCCTGGTAGTCTAGTGGTTAGG	tRF-414	GGTAGCATGGCTGAGTGG
tRF-18	AATGCCAGGGTGTGAGTCGATCC	tRF-204	CCCCCTGGGGTCTAGTGCCTAGGATTCGGT	tRF-419	GGTAGTGTGGCCGAGCGGTCTAAGGCCTG
tRF-20	ACCACTTGGACTCTGA	tRF-205	CCCCCTGGGGTCTAGTGCCTAGGATT	tRF-421	GGTCATCACGTCGCCTA
tRF-23	ACCCCTGTTGCTAGTGG	tRF-206	CCCCCTGGTAGTCTAGTGGTTAG	tRF-424	GGTCTCGTAAACCGAAGATCACGGGT
tRF-32	ACGGATCAGAACATTCTAGGTT	tRF-207	CCCTGGTCAAAATCCAGGTGCCCCC	tRF-425	GGTAGACACTTGGACTCTGA
tRF-37	AGAGCACTGGCTTGTA	tRF-210	CCGGATCAGAACATTG	tRF-427	GGTGGTCTAGTGGCTAGGATTGGT
tRF-39	AGAGCATCAGACTTTAACCTGAGGGT	tRF-217	CGAGCGCTCTAACGGCAC	tRF-428	GGTGGTTAGGATTGGC
tRF-40	AGAGCATCAGACTTTAACCTGAGGGTCA	tRF-219	CGAGCGCTCTAACGGCTC	tRF-436	GGTTATCACGTCGCCTAAC
tRF-44	AGAGCATTGGACTTTA	tRF-220	CGAGTGGCTCTAACGGCGTGG	tRF-439	GGTCAATTCCACCTTT
tRF-47	AGAGCGTGGTGTAAACGC	tRF-223	CGCTCTTGGTCTAGGGG	tRF-440	GGTCAATTCCCTTTCTTAAC
tRF-49	AGAGCGTTCGGCTGTTA	tRF-229	CGGCTGTTAACGAAAGGTTGGTGGT	tRF-443	GGTCCATGGGTTAATGGT
tRF-54	AGATCAAGAGGTCTCTGGTC	tRF-230	CGTAAACAGGGAGATCCT	tRF-445	GGTCGAATCCCACTTTGAC
tRF-56	AGATCAGAACAGGTGCGTGTCAAGTC	tRF-231	CGTAAACAGGGAGATCCTGGGT	tRF-453	GGTCGATTCCCTCCCTT
tRF-58	AGATCCCCATTCTTGCACCCGGGTTGATT	tRF-232	CGTGAGTTCGAGCCTCACACGGGC	tRF-454	GGTGGTCTAGGGCTATGATTCT
tRF-63	AGCAGAGTGGTGCAGTGG	tRF-234	CGTGGGTTCAAGCCCCACATTGGGC	tRF-465	GTCGGCTAGAGCGTGGTG
tRF-66	AGCATGCACGAGGTCTGGGT	tRF-236	CGTGGGTTCGAACCCCCACTCCTGGT	tRF-472	GTCTCTGTGGCGTAGTCGGT
tRF-67	AGCATGCATGAGGTCCC	tRF-237	CGTGGGTTCGAACATCCC	tRF-477	GTGGTCTAGTGGCTTAGG
tRF-69	AGCGACAGAGTGGTTCAATT	tRF-239	CGTGGGTTCGAACATCCCACACTGCC	tRF-480	GTGGTCTATCGGTTAGGATTC
tRF-71	AGCGCATTGGACTTCAATTCAAAGGTTG	tRF-243	CGTGGGTTGAGCCCCATGT	tRF-483	GTGGTTAACGGCATGGACTG
tRF-74	AGCGCGTCTGACTCCAGA	tRF-245	CTAACGGCGCTGGATTAA	tRF-488	GTGTTGATGGTATAGTGGT
tRF-75	AGCGCTTGGACTCTGA	tRF-248	CTAGGGTTCAAGTCCCTGTC	tRF-494	GTTAGTCAGTTGGTTAG
tRF-80	AGGATTCAAGCGCTCCA	tRF-249	CTAGTGGCTAGGATTCGGT	tRF-498	GTTAAATCTGGGTGCCCCC
tRF-87	AGGATTGGTGTCTCA	tRF-252	CTGAAGGCTGTGAGTTGAGCCTC	tRF-503	GTTCGACTCCCGGTATGGGA
tRF-90	AGGGATGGGTTCAATT	tRF-253	CTGCTAACATTCCATTGTGCT	tRF-504	GTTCGACTCCCTCTTCTAAC
tRF-95	AGGGGTGTGGTTCTCGCT	tRF-254	CTGCTAACATTCCATTGTGCT	tRF-505	GTTCGATTCCCGGCCAGGGGA
tRF-97	AGGGTCAGGGTTCAAG	tRF-257	CTTCGGATCAAAGATTGAGGTT	tRF-507	GTTGGTCAGAGCGTGGTGC
tRF-109	AGGTTCCGGGTTGAGTCCCAGGAGTCGCCA	tRF-258	CTTCTAACCAAAGGTTCCGGGTT	tRF-508	GTTGGTTAGAGCGTGGTGC
tRF-111	AGTAAACAGGAGATCCT	tRF-259	CTTCTAACCAAAGGTTGGGTT	tRF-509	GTTTCCATAGTGTACTGG
tRF-112	AGTAAACAGGAGATCCTGGGT	tRF-262	CTTTAACATTGAGGGTCCAGGGTTCATG	tRF-514	GTTTCTGTAGTATAGTGGTTATC
tRF-115	AGTAGGTAGCGCTCATCTCAT	tRF-283	GAGCCCTACGTGGGC	tRF-515	GTTTCTGTGGGTAGTGGTTAT
tRF-120	AGTCGGTAGAGCATGAGACTCTAACATCT	tRF-284	GAGCCTGTTAACATTGAT	tRF-517	GTTTCAACCAAGCGGCCGGGTTGACTCC
tRF-121	AGTGACAGAGTGGTTCAA	tRF-288	GATTCCAGCTTGAAGGAC	tRF-520	TAGAATTCTTGCTGCCACGCA
tRF-124	AGTGGTAAGGCGTCGGTCTCGTAAA	tRF-289	GATTCCCGGTCAAGGGA	tRF-521	TAGCTCAGTCGGTAGAGCATAAGACTCT

tRF-126	AGTGGTAGAATTCTGCCCTT	tRF-293	GCATGGGTGATTCACTGGTAGAATT	tRF-522	TAGGACGTGGGTGATAGGTA
tRF-127	AGTGGTAGAATTTCACCTG	tRF-295	GCATTGGTAGTCAGCGG	tRF-523	TAGGATGTGGTGAATAGGTG
tRF-130	AGTGGTCTGGGGTGCAG	tRF-299	GCATTTGACTGCAAATCAAGA	tRF-524	TAGGATGTGGTGTGACAG
tRF-131	AGTGGTTAGAATTCTGCG	tRF-300	GCATTTGACTGCAGATCA	tRF-528	TCAATTCCCAGCCAACGC
tRF-132	AGTGGTTAGGATTCCGCG	tRF-302	GCATTTGACTGCAGATCAAGAGGT	tRF-529	TCACCGCCGCAGCCCCGGGTTT
tRF-134	AGTGGTTAGGATTGGT	tRF-308	GCCCCGACTACCTCAGTCGG	tRF-532	TCAGGAGACCTGGGTTCTAGTC
tRF-135	AGTGGTTATCACATTGCCCT	tRF-309	GCCCCGAGAGCTCAGTGGG	tRF-537	TCCCTTGGTCTAGTGGTTAGGATTC
tRF-136	AGTGGTTCAATTCCACCTTTC	tRF-312	GCCCCGATGATCCTCAGTGGT	tRF-538	TCCCTGGTAGTCTAGTGGTTAG
tRF-137	AGTCGATCCTCGCTGGGCC	tRF-319	GCGGAGATACTCAGTGGGAG	tRF-539	TCCCTGGTCTAGTGGTTAGGATTA
tRF-142	ATAACGCCAAGGTGCGGGGTCGATCC	tRF-325	GCCTGGCTAGCTCAGTCGGCAA	tRF-543	TCCCTGGTCAATCCGGGTTTCGGC
tRF-143	ATAGGTAGCACAGAGAATTCTG	tRF-327	GCCTTGGTGGTGCAGTGGTAGAATTCTGCCCT	tRF-546	TCCTCATCAGTATACTGGT
tRF-150	ATCCTTAGGTCGCTGGTCGATTC	tRF-331	GCGCCTTCGGCTGTTAA	tRF-549	TCCTGAGTTGAGCCTCAGAGAGGGC
tRF-151	ATCGGTAGAGCGTTGGCT	tRF-335	GCAGGGAGACCCGGGTTCAATTCC	tRF-550	TCCTTGATGTTAGTGGTTAG
tRF-155	ATCTAAAGGTCTCTGGTT	tRF-340	GCCTTGTGGCCGCAGC	tRF-551	TCCCTGGTGGTCTAGTGGCTAG
tRF-157	ATCTGAGGGTCCAGGGTCAAGTCCTCGTTC	tRF-342	GCTCCAGTCTCTCGAGGCGTGGGT	tRF-558	TCGATGCCCGCATTCTCC
tRF-162	ATGGATCGAACGCATCCTT	tRF-344	GCTCGGATGATCCTCAGT	tRF-559	TCGATTCCCAGCCAATGC
tRF-163	ATGGATGGAAACCATCCTCTGCT	tRF-346	GCTTCTGTAATGTAGTGGTTATCACA	tRF-561	TCGATTCCCAGGCCAACGC
tRF-166	ATTAAGGCTCCAGTCTCT	tRF-351	GGATTGGGGTCCAGTGGTAGAATT	tRF-564	TCGATTCCCAGGCCATGC
tRF-167	ATTCAAAGGTTCCGGGTTCGAGTC	tRF-353	GGCCCCATGGTGTAAATGGTTAGCACTCTGGA	tRF-573	TCTTTGGGAGCTGGGT
tRF-169	ATTCAAAGGTTGTGGGTTCGAGTCCCA	tRF-355	GGCCCTGTAGCTCAGCGGTT	tRF-581	TGGGGTGCAGGCTTCAAA
tRF-172	ATTAGGCTCCAGTCTCT	tRF-367	GGCTCCCTAGCTTAGTGG	tRF-586	TCTAAACAGGAGATCCTGGGT
tRF-173	ATTAGGCTCCAGTCTCTCGG	tRF-381	GGGATTGGCGCTCTCA	tRF-588	TGTGGGTTCGAGTCCC
tRF-176	ATTGACTGCAGATCAAGA	tRF-388	GGGGATATAGCTCAGGGG	tRF-595	TTGGTGGTTCGATCCC
tRF-183	CAGGTTCGATTCTGGCCAATGC	tRF-392	GGGGGCAGAGCATTGACT	tRF-596	TTGGTTAGAGCGTGGTGCTAA
tRF-186	CAGTCGGTAGAGCATGGGACTCTTAATCC	tRF-394	GGGGGTATAGCTCACAGG	tRF-597	TTGTGGTCCAGTGGTAGAATT
tRF-187	CAGTCGGTGGAGCATGG	tRF-400	GGGGGTATAGTCAGGGG	tRF-598	TTTCAGTATGAGGCC

Table 3. The top-20 most abundant tRFs in each of the 11 datasets of [1] contain many unreported tRFs. For each tRF, the number of reads (stringent, exact mapping) that support it is reported. Also shown are the tRFs' "license plates" that we described in [6]. The tRFs that were reported in [1] are highlighted in yellow and their label is listed on the third column; otherwise, they are labeled "Novel-tRF". For the complete list of 3,341 discovered tRFs see Supp. Table 2.

group01_NAP			
tRF license plate	tRF sequence	What kind	# of reads (stringent mapping with exact matching)
tRF-19-PS5P4PJ4	GCCCGGATAGCTCAGTCGG	tRF-310	15263
tRF-17-08Q2B52	ACCGGGCGGAAACACCA	Novel-tRF	9972
tRF-18-BS68BFD2	AACCGGGCGGAAACACCA	Novel-tRF	9815
tRF-19-9ZFH69EI	TGTTTAGACGGGCTCACAT	Novel-tRF	4997
tRF-18-INVDRID1	ATGTTTAGACGGGCTCAC	Novel-tRF	4452
tRF-18-HR0VX6D2	ATCCCACCGCTGCCACCA	Novel-tRF	4429
tRF-18-R29P4P04	GGGGATGTAGCTCAGTGG	tRF-389	4356
tRF-22-PS5P4PW3H	GCCCGGATAGCTCAGTCGGTAG	Novel-tRF	3809
tRF-18-8R6546D2	TCCCCGGCACCTCCACCA	Novel-tRF	3744
tRF-18-8R6Q46D2	TCCCCGGCATCTCCACCA	Novel-tRF	3374
tRF-20-PS5P4PW3	GCCCGGATAGCTCAGTCGGT	Novel-tRF	3090
tRF-18-7XO8Q6DI	GTTTAGACGGGCTCACAT	Novel-tRF	2241
tRF-20-INVDR12Q	ATGTTTAGACGGGCTCACAT	Novel-tRF	2132
tRF-20-R29P4P9L	GGGGATGTAGCTCAGTGGTA	Novel-tRF	2056
tRF-20-RKIP4O13	GGGGGATTAGCTCAAATGGT	tRF-391	1953
tRF-22-WB08Q2B52	TCGAACCGGGCGGAAACACCA	Novel-tRF	1816
tRF-19-R29P4PJZ	GGGGATGTAGCTCAGTGGT	Novel-tRF	1712
tRF-18-9ZFH69U	TGTTTAGACGGGCTCACCA	Novel-tRF	1684
tRF-18-1KVUY9DW	AGGGGTATGATTCTCGCT	tRF-93	1661
tRF-21-PS5P4PW3B	GCCCGGATAGCTCAGTCGGTA	Novel-tRF	1508

group02_BPH			
tRF license plate	tRF sequence	What kind	# of reads (stringent mapping with exact matching)
tRF-18-R29P4P04	GGGGATGTAGCTCAGTGG	tRF-389	80713
tRF-19-PS5P4PJ4	GCCCGGATAGCTCAGTCGG	tRF-310	59388
tRF-17-08Q2B52	ACCGGGCGGAAACACCA	Novel-tRF	38412
tRF-20-R29P4P9L	GGGGATGTAGCTCAGTGGTA	Novel-tRF	36919
tRF-18-BS68BFD2	AACCGGGCGGAAACACCA	Novel-tRF	34118
tRF-19-R29P4PJZ	GGGGATGTAGCTCAGTGGT	Novel-tRF	24156
tRF-20-PS5P4PW3	GCCCGGATAGCTCAGTCGGT	Novel-tRF	21079
tRF-19-RKIP4OF4	GGGGGATTAGCTCAAATGG	Novel-tRF	18124
tRF-18-RK9P4P04	GGGGGTGTAGCTCAGTGG	tRF-402	16656
tRF-17-9ZFH691	TGTTTAGACGGGCTCAC	Novel-tRF	15425
tRF-18-SP5830D4	GTCAGGATGGCCGAGCGG	Novel-tRF	15334
tRF-18-QNR8VP04	GCGTTGGTGGTATAGTGG	Novel-tRF	15154
tRF-20-RKIP4O13	GGGGGATTAGCTCAAATGGT	tRF-391	15122
tRF-18-INVDRID1	ATGTTTAGACGGGCTCAC	Novel-tRF	14213
tRF-18-HR0VX6D2	ATCCCACCGCTGCCACCA	Novel-tRF	12157
tRF-18-7XO8Q6DI	GTTTAGACGGGCTCACAT	Novel-tRF	11090
tRF-19-9ZFH69EI	TGTTTAGACGGGCTCACAT	Novel-tRF	10382
tRF-21-PS5P4PW3B	GCCCGGATAGCTCAGTCGGTA	Novel-tRF	10331
tRF-21-RKIP4O13B	GGGGGATTAGCTCAAATGGTA	Novel-tRF	9633
tRF-16-7XO8Q6D	GTTTAGACGGGCTCAC	Novel-tRF	8004

group03_PCa6_cured

tRF license plate	tRF sequence	What kind	# of reads (stringent mapping with exact matching)
tRF-17-08Q2B52	ACCGGGCGGAAACACCA	Novel-tRF	14648
tRF-19-PS5P4PJ4	GCCCGGATAGCTCAGTCGG	tRF-310	14103
tRF-18-BS68BFD2	AACCGGGCGGAAACACCA	Novel-tRF	8914
tRF-29-PSQP4PW3FJF4	GCCCGGCTAGCTCAGTCGGTAGAGCATGG	tRF-315	7164
tRF-23-R29P4P9LDS	GGGGATGTAGCTCAGTGGTAGAG	Novel-tRF	6329
tRF-18-HR0VX6D2	ATCCACCGCTGCCACCA	Novel-tRF	5213
tRF-20-PS5P4PW3	GCCCGGATAGCTCAGTCGGT	Novel-tRF	5029
tRF-21-7O58J0K8E	GTTAAGATGGCAGAGCCCCGGT	Novel-tRF	4797
tRF-24-R29P4P9LH9	GGGGATGTAGCTCAGTGGTAGAGC	Novel-tRF	4657
tRF-20-RKIP4O13	GGGGATTAGCTCAAATGGT	tRF-391	4431
tRF-18-R29P4P04	GGGGATGTAGCTCAGTGG	tRF-389	4081
tRF-22-PS5P4PW3H	GCCCGGATAGCTCAGTCGGTAG	Novel-tRF	3696
tRF-17-HIUNWV2	ATACTTAATTTCTGCCA	Novel-tRF	3667
tRF-18-8R6Q46D2	TCCCCGGCATTCCACCA	Novel-tRF	3364
tRF-21-V29K9UV30	TAGGATGGGGTGTGATAGGTG	Novel-tRF	3274
tRF-18-8R6546D2	TCCCCGGCACCTCCACCA	Novel-tRF	2965
tRF-30-PSQP4PW3FJIK	GCCCGGCTAGCTCAGTCGGTAGAGCATGG	Novel-tRF	2896
tRF-19-R29P4PJZ	GGGGATGTAGCTCAGTGGT	Novel-tRF	2850
tRF-28-PSQP4PW3FJD0	GCCCGGCTAGCTCAGTCGGTAGAGCATG	tRF-314	2811
tRF-16-V29K9UE	TAGGATGGGGTGTGAT	Novel-tRF	2675

group04_PCa6_recurrent

tRF license plate	tRF sequence	What kind	# of reads (stringent mapping with exact matching)
tRF-19-PS5P4PJ4	GCCCGGATAGCTCAGTCGG	tRF-310	31244
tRF-17-08Q2B52	ACCGGGCGGAAACACCA	Novel-tRF	22572
tRF-18-BS68BFD2	AACCGGGCGGAAACACCA	Novel-tRF	12315
tRF-20-PS5P4PW3	GCCCGGATAGCTCAGTCGGT	Novel-tRF	9351
tRF-22-PS5P4PW3H	GCCCGGATAGCTCAGTCGGTAG	Novel-tRF	8684
tRF-24-R29P4P9LH9	GGGGATGTAGCTCAGTGGTAGAGC	Novel-tRF	7395
tRF-17-HIUNWV2	ATACTTAATTTCTGCCA	Novel-tRF	7231
tRF-18-8R6Q46D2	TCCCCGGCATTCCACCA	Novel-tRF	6511
tRF-29-PSQP4PW3FJF4	GCCCGGCTAGCTCAGTCGGTAGAGCATGG	tRF-315	5898
tRF-18-HR0VX6D2	ATCCACCGCTGCCACCA	Novel-tRF	5046
tRF-23-R29P4P9LDS	GGGGATGTAGCTCAGTGGTAGAG	Novel-tRF	4601
tRF-18-8R6546D2	TCCCCGGCACCTCCACCA	Novel-tRF	4434
tRF-18-R29P4P04	GGGGATGTAGCTCAGTGG	tRF-389	3735
tRF-16-7XO8Q6D	GTTTAGACGGGCTCAC	Novel-tRF	3160
tRF-17-9ZFH691	TGTTTAGACGGGCTCAC	Novel-tRF	2925
tRF-19-9ZFH69EI	TGTTTAGACGGGCTCACAT	Novel-tRF	2911
tRF-27-5BF900BY4D5	GAGAAAAGCTCACAAAGAACTGCTAACTC	Novel-tRF	2822
tRF-18-INVDRID1	ATGTTTAGACGGGCTCAC	Novel-tRF	2582
tRF-21-PS5P4PW3B	GCCCGGATAGCTCAGTCGGTA	Novel-tRF	2545
tRF-19-R29P4PJZ	GGGGATGTAGCTCAGTGGT	Novel-tRF	2500

group05_PCa7_recurrent

tRF license plate	tRF sequence	What kind	# of reads (stringent mapping with exact matching)
tRF-17-08Q2B52	ACCGGGCGGAAACACCA	Novel-tRF	13986

tRF-19-PS5P4PJ4	GCCCGGATAGCTCAGTCGG	tRF-310	13927
tRF-18-BS68BFD2	AACCGGGCGGAAACACCA	Novel-tRF	7173
tRF-19-OSM83OJX	GACCGCGTGGCCTAATGGGA	tRF-271	4494
tRF-17-HIUNWV2	ATACTTAATTCTGCCA	Novel-tRF	4165
tRF-20-PS5P4PW3	GCCCGGATAGCTCAGTCGGT	Novel-tRF	3600
tRF-18-8R6Q46D2	TCCCCGGCATCTCCACCA	Novel-tRF	3453
tRF-20-RKIP4O13	GGGGGATTAGCTCAAATGGT	tRF-391	3286
tRF-18-8R6546D2	TCCCCGGCACCTCCACCA	Novel-tRF	3265
tRF-22-PS5P4PW3H	GCCCGGATAGCTCAGTCGGTAG	Novel-tRF	2866
tRF-24-R29P4P9LH9	GGGGATGTAGCTCAGTGGTAGAGC	Novel-tRF	2767
tRF-18-HR0VX6D2	ATCCCACCGCTGCCACCA	Novel-tRF	2637
tRF-18-R29P4P04	GGGGATGTAGCTCAGTGG	tRF-389	2340
tRF-21-7O58J0K8E	GTAAAGATGGCAGAGCCCGGT	Novel-tRF	2141
tRF-21-V29K9UV30	TAGGATGGGGTGTGATAGGTG	Novel-tRF	2105
tRF-23-R29P4P9LDS	GGGGATGTAGCTCAGTGGTAGAG	Novel-tRF	1806
tRF-18-INVDRID1	ATGTTTAGACGGGCTCACAC	Novel-tRF	1773
tRF-20-INVDR12Q	ATGTTTAGACGGGCTCACAT	Novel-tRF	1768
tRF-19-QNR8VPJZ	GCGTTGGTGGTATACTGGT	tRF-337	1654
tRF-19-R29P4PJZ	GGGGATGTAGCTCAGTGGT	Novel-tRF	1478

group06_PCa8_recurrent

tRF license plate	tRF sequence	What kind	# of reads (stringent mapping with exact matching)
tRF-17-08Q2B52	ACCGGGCGGAAACACCA	Novel-tRF	13708
tRF-18-BS68BFD2	AACCGGGCGGAAACACCA	Novel-tRF	10564
tRF-17-HIUNWV2	ATACTTAATTCTGCCA	Novel-tRF	9029
tRF-18-HR0VX6D2	ATCCCACCGCTGCCACCA	Novel-tRF	8610
tRF-19-PS5P4PJ4	GCCCGGATAGCTCAGTCGG	tRF-310	6682
tRF-20-PS5P4PW3	GCCCGGATAGCTCAGTCGGT	Novel-tRF	6222
tRF-19-SP58301Z	GTCAGGATGGCCGAGCGGT	tRF-462	5575
tRF-22-PS5P4PW3H	GCCCGGATAGCTCAGTCGGTAG	Novel-tRF	3556
tRF-19-OSM83OJX	GACCGCGTGGCCTAATGGGA	tRF-271	3388
tRF-19-R29P4PJZ	GGGGATGTAGCTCAGTGGT	Novel-tRF	3197
tRF-29-PSQP4PW3FJF4	GCCCGGCTAGCTCAGTCGGTAGAGCATGG	tRF-315	3183
tRF-20-RKIP4O13	GGGGGATTAGCTCAAATGGT	tRF-391	3060
tRF-21-7O58J0K8E	GTAAAGATGGCAGAGCCCGGT	Novel-tRF	2995
tRF-17-4E6L1F3	CTAATGGATAAGGCAC	tRF-247	2748
tRF-18-R29P4P04	GGGGATGTAGCTCAGTGG	tRF-389	2644
tRF-19-QNR8VPJZ	GCGTTGGTGGTATACTGGT	tRF-337	2582
tRF-18-8R6546D2	TCCCCGGCACCTCCACCA	Novel-tRF	2551
tRF-18-8R6Q46D2	TCCCCGGCATCTCCACCA	Novel-tRF	2400
tRF-19-9ZFH69EI	TGTTTAGACGGGCTCACAT	Novel-tRF	2390
tRF-23-R29P4P9LDS	GGGGATGTAGCTCAGTGGTAGAG	Novel-tRF	2348

group07_PCaTURP_hormone_refractory

tRF license plate	tRF sequence	What kind	# of reads (stringent mapping with exact matching)
tRF-19-OSM83OJX	GACCGCGTGGCCTAATGGGA	tRF-271	11457
tRF-17-08Q2B52	ACCGGGCGGAAACACCA	Novel-tRF	9280
tRF-18-BS68BFD2	AACCGGGCGGAAACACCA	Novel-tRF	9056
tRF-18-HR0VX6D2	ATCCCACCGCTGCCACCA	Novel-tRF	6731
tRF-19-69M8LOJX	GGCTCCGTGGCGCAATGGA	tRF-368	5757
tRF-19-OR183OJX	GACCCAGTGGCCTAATGGGA	tRF-270	5562
tRF-19-R29P4PJZ	GGGGATGTAGCTCAGTGGT	Novel-tRF	5223

tRF-19-SP58301Z	GTCAGGATGGCCGAGCGGT	tRF-462	4832
tRF-19-PR1830JX	GCCCCAGTGGCCTAATGGAA	tRF-305	3296
tRF-18-HR6HFRD2	ATCCCGGACGAGCCCCCA	tRF-148	2960
tRF-21-V29K9UV30	TAGGATGGGGTGTGATAGGTG	Novel-tRF	2846
tRF-19-QNR8VPJZ	GCGTTGGTGGTATACTGGT	tRF-337	2539
tRF-20-RKIP4O13	GGGGATTAGCTCAAATGGT	tRF-391	2524
tRF-18-R29P4P04	GGGGATGTAGCTCAGTCGG	tRF-389	2475
tRF-19-9ZFH69EI	TGTTAGACGGGCTCACAT	Novel-tRF	2312
tRF-19-PS5P4PJ4	GCCCCGATAGCTCAGTCGG	tRF-310	2057
tRF-20-OUR8309N	GACGAGGTGGCCGAGTGGTT	Novel-tRF	1960
tRF-20-0P58309N	ACCAGGATGGCCGAGTGGTT	Novel-tRF	1917
tRF-18-8R6546D2	TCCCCGGCACCTCCACCA	Novel-tRF	1845
tRF-24-V29K9UV3IU	TAGGATGGGGTGTGATAGGTGGCA	Novel-tRF	1843

group08_LN_PCa

tRF license plate	tRF sequence	What kind	# of reads (stringent mapping with exact matching)
tRF-22-PS5P4PW3H	GCCCGGATAGCTCAGTCGGTAG	Novel-tRF	50448
tRF-19-PS5P4PJ4	GCCCGGATAGCTCAGTCGG	tRF-310	28823
tRF-20-PS5P4PW3	GCCCGGATAGCTCAGTCGGT	Novel-tRF	21791
tRF-21-PS5P4PW3B	GCCCGGATAGCTCAGTCGGTA	Novel-tRF	20838
tRF-17-08Q2B52	ACCGGGCGAACACCCA	Novel-tRF	16150
tRF-29-PSQP4PW3FJF4	GCCCGGCTAGCTCAGTCGGTAGAGCATGG	tRF-315	12978
tRF-19-SP58301Z	GTCAGGATGGCCGAGCGGT	tRF-462	12315
tRF-24-PS5P4PW3ES	GCCCGGATAGCTCAGTCGGTAGAG	Novel-tRF	9638
tRF-26-PNR8YP9LOND	GCATTGGTGGTTCAGTGGTAGAAATT	tRF-297	9311
tRF-23-PS5P4PW3X	GCCCGGATAGCTCAGTCGGTAGA	Novel-tRF	8835
tRF-18-BS68BFD2	AACCGGGCGAACACCCA	Novel-tRF	8210
tRF-28-PSQP4PW3FJD0	GCCCGGCTAGCTCAGTCGGTAGAGCATG	tRF-314	5812
tRF-22-87R8WP9NH	TCCCTGGTGGTCTAGTGGTTAG	tRF-542	5521
tRF-30-PSQP4PW3FJIK	GCCCGGCTAGCTCAGTCGGTAGAGCATGGG	Novel-tRF	5345
tRF-23-R29P4P9LDS	GGGGATGTAGCTCAGTGGTAGAG	Novel-tRF	5072
tRF-19-9ZFH69EI	TGTTAGACGGGCTCACAT	Novel-tRF	4758
tRF-18-HR0VX6D2	ATCCCACCGCTGCCACCA	Novel-tRF	4447
tRF-29-FP18LPMBQ4H4	AGCAGAGTGGCGCAGCGGAAGCGTGCTGG	tRF-62	4345
tRF-19-QNR8VPJZ	GCGTTGGTGGTATACTGGT	tRF-337	4338
tRF-32-PSQP4PW3FJIK1	GCCCGGCTAGCTCAGTCGGTAGAGCATGGAC	Novel-tRF	4332

group09_PCa6_recurrent_norm_chromoso

tRF license plate	tRF sequence	What kind	# of reads (stringent mapping with exact matching)
tRF-17-08Q2B52	ACCGGGCGAACACCCA	Novel-tRF	25453
tRF-19-PS5P4PJ4	GCCCGGATAGCTCAGTCGG	tRF-310	17394
tRF-18-BS68BFD2	AACCGGGCGAACACCCA	Novel-tRF	15243
tRF-20-PS5P4PW3	GCCCGGATAGCTCAGTCGGT	Novel-tRF	11240
tRF-19-OSM830JX	GACCGCGTGGCCTAATGGAA	tRF-271	8863
tRF-18-R29P4P04	GGGGATGTAGCTCAGTCGG	tRF-389	8164
tRF-20-RKIP4O13	GGGGATTAGCTCAAATGGT	tRF-391	7790
tRF-18-HR0VX6D2	ATCCCACCGCTGCCACCA	Novel-tRF	6583
tRF-19-R29P4PJZ	GGGGATGTAGCTCAGTGGT	Novel-tRF	6079
tRF-20-R29P4P9L	GGGGATGTAGCTCAGTGGTA	Novel-tRF	4427
tRF-19-SP58301Z	GTCAGGATGGCCGAGCGGT	tRF-462	3440
tRF-21-RKIP4O13B	GGGGATTAGCTCAAATGGT	Novel-tRF	3316
tRF-22-PS5P4PW3H	GCCCGGATAGCTCAGTCGGTAG	Novel-tRF	3250

tRF-19-QNR8VPJZ	GCGTTGGTGGTATAGTGGT	tRF-337	3229
tRF-21-7O58J0K8E	GTAAAGATGGCAGAGCCCGGT	Novel-tRF	3123
tRF-19-RKIP4OF4	GGGGGATTAGCTCAAATGG	Novel-tRF	3014
tRF-18-SP5830D4	GTCAGGATGGCCGAGCGG	Novel-tRF	2603
tRF-21-PS5P4PW3B	GCCCCGATAGCTCAGTCGGTA	Novel-tRF	2472
tRF-19-69M8LOJX	GGCTCCGTGGCGCAATGGGA	tRF-368	2339
tRF-18-RK9P4P04	GGGGGTGTAGCTCAGTGGG	tRF-402	2237

group10_PCa6_TMPRSS2_ERG_fusion

tRF license plate	tRF sequence	What kind	# of reads (stringent mapping with exact matching)
tRF-17-08Q2B52	ACCGGGCGGAAACACCA	Novel-tRF	16792
tRF-19-PS5P4PJ4	GCCCCGATAGCTCAGTCGG	tRF-310	10346
tRF-18-BS68BFD2	AACCAGGGCGGAAACACCA	Novel-tRF	9504
tRF-20-PS5P4PW3	GCCCGGATAGCTCAGTCGGT	Novel-tRF	8852
tRF-23-R29P4P9LDS	GGGGATGTAGCTCAGTGGTAGAG	Novel-tRF	8365
tRF-19-9ZFH69EI	TGTTTAGACGGGCTCACAT	Novel-tRF	7827
tRF-22-PS5P4PW3H	GCCCCGATAGCTCAGTCGGTAG	Novel-tRF	7417
tRF-24-R29P4P9LH9	GGGGATGTAGCTCAGTGGTAGAGC	Novel-tRF	5847
tRF-18-8R6546D2	TCCCCGGCACCTCCACCA	Novel-tRF	4445
tRF-21-7O58J0K8E	GTAAAGATGGCAGAGCCCGGT	Novel-tRF	4334
tRF-18-8R6Q46D2	TCCCCGGCATCTCCACCA	Novel-tRF	4083
tRF-18-HR0VX6D2	ATCCCACCGCTGCCACCA	Novel-tRF	3824
tRF-19-SP58301Z	GTCAGGATGGCCGAGCGGT	tRF-462	3516
tRF-19-OSM83OJX	GACCGCGTGGCCTAATGGGA	tRF-271	2922
tRF-16-7XO8Q6D	GTTTAGACGGGCTCAC	Novel-tRF	2736
tRF-29-PSQP4PW3FJF4	GCCCCGCTAGCTCAGTCGGTAGAGCATGG	tRF-315	2673
tRF-27-5BF900BY4D5	GAGAAAAGCTCACAAAGAACTGCTAACTC	Novel-tRF	2658
tRF-20-RKIP4O13	GGGGGATTAGCTCAAATGGT	tRF-391	2612
tRF-17-9ZFH691	TGTTTAGACGGGCTCAC	Novel-tRF	2603
tRF-18-INVDRID1	ATGTTAGACGGGCTCAC	Novel-tRF	2485

group11_FFPE_from_group3

tRF license plate	tRF sequence	What kind	# of reads (stringent mapping with exact matching)
tRF-22-R29P4P9LL	GGGGATGTAGCTCAGTGGTAGA	Novel-tRF	55694
tRF-23-R29P4P9LDS	GGGGATGTAGCTCAGTGGTAGAG	Novel-tRF	50707
tRF-20-R29P4P9L	GGGGATGTAGCTCAGTGGTA	Novel-tRF	49851
tRF-24-R29P4P9LH9	GGGGATGTAGCTCAGTGGTAGAGC	Novel-tRF	31240
tRF-21-R29P4P9L0	GGGGATGTAGCTCAGTGGTAG	Novel-tRF	20642
tRF-19-R29P4PJZ	GGGGATGTAGCTCAGTGGT	Novel-tRF	17488
tRF-22-WB08Q2B52	TCGAAACCGGGCGGAAACACCA	Novel-tRF	16986
tRF-21-PS5P4PW3B	GCCCCGATAGCTCAGTCGGTA	Novel-tRF	15584
tRF-22-WE8SPOX52	TCGATTCGGCCAATGCACCA	Novel-tRF	15411
tRF-20-ODMJ6B26	GAAACCGGGCGGAAACACCA	Novel-tRF	14391
tRF-21-LNK8KDP1B	CGATTCGGCCAACGCACCA	Novel-tRF	13646
tRF-19-QNR8VPJZ	GCGTGGTGGTATAGTGGT	tRF-337	13643
tRF-22-WE8SPOL52	TCGATTCGGCCAACGCACCA	Novel-tRF	13372
tRF-22-PS5P4PW3H	GCCCCGATAGCTCAGTCGGTAG	Novel-tRF	13331
tRF-20-593J2H26	GATTCGGCCAACGCACCA	Novel-tRF	13286
tRF-20-OMKJRV46	GAATCCAGCGGTGCCTCCA	Novel-tRF	13064
tRF-21-LNK8KEP1B	CGATTCGGCCAATGCACCA	Novel-tRF	11877
tRF-30-87R95RM3Y826	TCCCTGGTTCGATCCCGGGTTCGGCACCA	Novel-tRF	11154
tRF-24-V29K9UV3IU	TAGGATGGGGTGTGATAGGTGGCA	Novel-tRF	9570
tRF-21-OUR8309NB	GACCGAGGTGGCCGAGTGGTTA	Novel-tRF	9404

Table 4. Unreported tRFs that are present in all 11 RNA-seq datasets. Of the 3,341 discovered tRFs, 195 are present in all 11 of the datasets discussed in [1]; however, only 37 of these 195 tRFs were reported in [1]. The below list shows the sequences of all 195 indicating the 37 that were reported. Also shown is whether the tRF is present exclusively in tRNA space or not. For the complete list of 3,341 tRFs and their presence across the 11 RNA-seq datasets of [1] see Supp. Table 3.

tRF license plate	tRF sequence	what kind of tRF?	Exclusively in tRNA space or Ambiguous?
tRF-29-PSQP4PW3FJF4	GCCCGGCTAGCTCAGTCGGTAGAGCATGG	tRF-315	Exclusive_tRF
tRF-29-FP18LPMBQ4H4	AGCAGAGTGGCGCAGCGGAACGCGTGTGG	tRF-62	Exclusive_tRF
tRF-28-PSQP4PW3FJD0	GCCCGGCTAGCTCAGTCGGTAGAGCATG	tRF-314	Exclusive_tRF
tRF-27-5BF900BY4D5	GAGAAAGCTACAAGAACCTGCTAACTC	Novel-tRF	Exclusive_tRF
tRF-26-V29K9UV3650	TAGGATGGGGTGTGATAGGTGGCACG	Novel-tRF	Exclusive_tRF
tRF-26-PNR8YP9LOND	GCATTGGTGGTTCACTGGTAGAAATTC	tRF-297	Ambiguous_tRF
tRF-26-FN7BWU2F5JE	AGATTGTGAATCTGACAACAGAGGCT	Novel-tRF	Ambiguous_tRF
tRF-26-9DWUH6QE30E	TGGACTCTGAATCCAGCGATCCGAGT	tRF-577	Exclusive_tRF
tRF-26-5BF900BY4DE	GAGAAAGCTACAAGAACCTGCTAACT	Novel-tRF	Exclusive_tRF
tRF-25-SP5830MMUK	GTCAGGATGGCGAGCGGTCTAAGG	Novel-tRF	Ambiguous_tRF
tRF-25-5BF900BY4D	GAGAAAGCTACAAGAACCTGCTAAC	Novel-tRF	Exclusive_tRF
tRF-24-V29K9UV3IU	TAGGATGGGGTGTGATAGGTGGCA	Novel-tRF	Exclusive_tRF
tRF-24-RK9P4P9LH9	GGGGGTGTAGCTCAGTGGTAGAGC	Novel-tRF	Exclusive_tRF
tRF-24-R29P4P9LH9	GGGGATGTAGCTCAGTGGTAGAGC	Novel-tRF	Exclusive_tRF
tRF-24-5BF900BYHF	GAGAAAGCTACAAGAACCTGCTAA	Novel-tRF	Exclusive_tRF
tRF-23-XSXML730H	TGCCGTGATCGTATACTGGTTAG	Novel-tRF	Exclusive_tRF
tRF-23-V29K9UV3D9	TAGGATGGGGTGTGATAGGTGGC	Novel-tRF	Exclusive_tRF
tRF-23-RK9P4P9LDS	GGGGGTGTAGCTCAGTGGTAGAG	Novel-tRF	Exclusive_tRF
tRF-23-R29P4P9LDS	GGGGATGTAGCTCAGTGGTAGAG	Novel-tRF	Exclusive_tRF
tRF-23-PS5P4PW3X	GCCCCGATAGCTCAGTCGGTAGA	Novel-tRF	Exclusive_tRF
tRF-23-86J8WPMNY	TCCCACATGGCTAGCGGTTAGG	Novel-tRF	Exclusive_tRF
tRF-23-79MP9P9NDD	GTTCCTGTAGTGTAGTGGTTATC	Novel-tRF	Ambiguous_tRF
tRF-23-6SXMSL730H	GGCGGTGATCGTATACTGGTTAG	Novel-tRF	Ambiguous_tRF
tRF-23-5BF900BYDO	GAGAAAGCTACAAGAACCTGCTA	Novel-tRF	Exclusive_tRF
tRF-22-XSXML730	TGCCGTGATCGTATACTGGTTA	Novel-tRF	Exclusive_tRF
tRF-22-WEKSPM852	TCGATCCCCGGCATCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-22-WE8SPOX52	TCGATTCCCCGGCCAATGCACCA	Novel-tRF	Exclusive_tRF
tRF-22-WE8SPOL52	TCGATTCCCCGGCCAACGCACCA	Novel-tRF	Exclusive_tRF
tRF-22-WB8US5652	TCGAATCCGAGTCACGGCACCA	Novel-tRF	Exclusive_tRF
tRF-22-WB08Q2B52	TCGAAACGGGGCGAACACCCA	Novel-tRF	Exclusive_tRF
tRF-22-W0K672052	TCGAGCCCCAGTGAACACCCA	Novel-tRF	Exclusive_tRF
tRF-22-V29K9UV34	TAGGATGGGGTGTGATAGGTGG	Novel-tRF	Exclusive_tRF
tRF-22-SP5830MMO	GTCAGGATGGCGAGCGGTCTA	Novel-tRF	Ambiguous_tRF
tRF-22-RK9P4P9LL	GGGGGTGTAGCTCAGTGGTAGA	Novel-tRF	Exclusive_tRF
tRF-22-R29P4P9LL	GGGGATGTAGCTCAGTGGTAGA	Novel-tRF	Exclusive_tRF
tRF-22-PS5P4PW3H	GCCCCGATAGCTCAGTCGGTAG	Novel-tRF	Exclusive_tRF
tRF-22-8EKSP1852	TCAATCCCCGGCACCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-22-87R8WP9NH	TCCCTGGTGGTCTAGTGGTTAG	tRF-542	Ambiguous_tRF
tRF-22-86V8WPMNH	TCCCACATGGCTAGCGGTTAG	Novel-tRF	Exclusive_tRF
tRF-22-86J8WPMNH	TCCCACATGGCTAGCGGTTAG	Novel-tRF	Exclusive_tRF
tRF-22-7O58J0K8O	GTAAAGATGGCAGAGCCCGTA	Novel-tRF	Exclusive_tRF
tRF-22-OP58309NF	ACCAGGATGGCGAGTGGTTAA	Novel-tRF	Exclusive_tRF
tRF-21-XSXML73E	TGCCGTGATCGTATACTGGTT	Novel-tRF	Exclusive_tRF
tRF-21-V29K9UV30	TAGGATGGGGTGTGATAGGTG	Novel-tRF	Exclusive_tRF
tRF-21-SP5830MME	GTCAGGATGGCGAGCGGTCT	Novel-tRF	Ambiguous_tRF
tRF-21-SP58309ME	GTCAGGATGGCGAGTGGTCT	Novel-tRF	Ambiguous_tRF
tRF-21-S3M8309NB	GTAGTCGGCCGAGTGGTTA	Novel-tRF	Exclusive_tRF
tRF-21-RPM830MME	GGTAGCGTGGCCGAGCGGTCT	Novel-tRF	Exclusive_tRF
tRF-21-RKIP4O13B	GGGGGATTAGCTAAATGGTA	Novel-tRF	Exclusive_tRF
tRF-21-RK9P4P9L0	GGGGGTGTAGCTCAGTGGTAG	Novel-tRF	Exclusive_tRF

tRF-21-R29P4P9L0	GGGGATGTAGCTCAGTGGTAG	Novel-tRF	Exclusive_tRF
tRF-21-QW58309NB	GCTGTGATGGCCGAGTGGTTA	tRF-345	Ambiguous_tRF
tRF-21-PS5P4PW3B	GCCCCGATAGCTCAGTCGGTA	Novel-tRF	Exclusive_tRF
tRF-21-OUR8309NB	GACGAGGTGGCCGAGTGGTTA	Novel-tRF	Ambiguous_tRF
tRF-21-LNK8KDP1B	CGATTCCCGGCCAACGCACCA	Novel-tRF	Exclusive_tRF
tRF-21-LMK8J7K1B	CGATCCCCGGCATCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-21-87R8WP9NB	TCCCTGGTGGTCTAGTGGTTA	Novel-tRF	Ambiguous_tRF
tRF-21-86V8WPMNB	TCCCCATATGGTCTAGCGGTTA	Novel-tRF	Exclusive_tRF
tRF-21-86J8WPMNB	TCCCCACATGGTCTAGCGGTTA	Novel-tRF	Exclusive_tRF
tRF-21-70O58J0K8E	GTAAAGATGGCAGAGCCCGT	Novel-tRF	Exclusive_tRF
tRF-21-6SXMSL73E	GGCCGTGATCGTATACTGGTT	Novel-tRF	Ambiguous_tRF
tRF-21-1E6SF8WO0	AGGATGGCCGAGCGGCTAAG	Novel-tRF	Ambiguous_tRF
tRF-21-OPD8309NB	ACCAGAATGGCCGAGTGGTTA	Novel-tRF	Exclusive_tRF
tRF-21-OP58309NB	ACCAGGATGGCCGAGTGGTTA	tRF-22	Exclusive_tRF
tRF-20-V47P596V	TAGTGGTTAGGATTCCGGCG	Novel-tRF	Exclusive_tRF
tRF-20-V29K9UV3	TAGGATGGGTGTGATAGGT	Novel-tRF	Exclusive_tRF
tRF-20-SP5830MM	GTCAGGATGGCCGAGCGGTC	Novel-tRF	Ambiguous_tRF
tRF-20-S998LOW3	GTCTCTGTGGCGCAATCGGT	tRF-469	Exclusive_tRF
tRF-20-S3M8309N	GTAGTCGTGGCCGAGTGGTT	Novel-tRF	Exclusive_tRF
tRF-20-RKIP4O13	GGGGGATTAGCTCAAATGGT	tRF-391	Exclusive_tRF
tRF-20-RK9P4P9L	GGGGGTGTAGCTCAGTGGTA	Novel-tRF	Exclusive_tRF
tRF-20-R2IP4O13	GGGGAATTAGCTCAAATGGT	tRF-385	Exclusive_tRF
tRF-20-R29P4P9L	GGGGATGTAGCTCAGTGGTA	Novel-tRF	Exclusive_tRF
tRF-20-QNR8VP9L	GCGTTGGTGGTATAGTGGTA	Novel-tRF	Exclusive_tRF
tRF-20-PS5P4PW3	GCCCCGATAGCTCAGTCGGT	Novel-tRF	Exclusive_tRF
tRF-20-PNR8YP9L	GCATTGGTGGTTAGTGGTA	Novel-tRF	Ambiguous_tRF
tRF-20-PJ58309N	GCAGCGATGGCCGAGTGGTT	Novel-tRF	Exclusive_tRF
tRF-20-PEEXI9X6	GCAATACTTAATTCTGCCA	Novel-tRF	Exclusive_tRF
tRF-20-OUR8309N	GACGAGGTGGCCGAGTGGTT	Novel-tRF	Ambiguous_tRF
tRF-20-OSM83O9E	GACCGCGTGGCCAATGGAT	Novel-tRF	Exclusive_tRF
tRF-20-ODMJ6B26	GAAACCGGGCGGAAACACCA	Novel-tRF	Exclusive_tRF
tRF-20-B2NZW7O6	AAAGACTTTCTGACCA	Novel-tRF	Ambiguous_tRF
tRF-20-86J8WPMN	TCCCCACATGGTCTAGCGGTT	Novel-tRF	Exclusive_tRF
tRF-20-79MP9P9N	GTTCCTGTAGTGTAGTGGTT	Novel-tRF	Ambiguous_tRF
tRF-20-69M8L09E	GGCTCCGTGGCGCAATGGAT	Novel-tRF	Exclusive_tRF
tRF-20-5R3JH926	GATCCCCGGCATCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-20-32VIJMRP	CCGGATAGCTCAGTCGGTAG	Novel-tRF	Exclusive_tRF
tRF-20-18YKISQI	AGTGGTTAGGATTCGGCCT	Novel-tRF	Exclusive_tRF
tRF-20-OPD8309N	ACCAGAATGGCCGAGTGGTT	tRF-21	Exclusive_tRF
tRF-20-0P58309N	ACCAGGATGGCCGAGTGGTT	Novel-tRF	Exclusive_tRF
tRF-19-WB08Q20U	TCGAACCGGGCGGAAACA	Novel-tRF	Exclusive_tRF
tRF-19-VKS4I71Z	TAGGGGTATGATTCTCGGT	Novel-tRF	Exclusive_tRF
tRF-19-V47P5918	TAGTGGTTAGGATTCCGGC	Novel-tRF	Exclusive_tRF
tRF-19-V29K9U2Y	TAGGATGGGTGTGATAGG	Novel-tRF	Exclusive_tRF
tRF-19-SP5830JZ	GTCAGGATGGCCGAGTGGT	Novel-tRF	Ambiguous_tRF
tRF-19-SP58301Z	GTCAGGATGGCCGAGCGGT	tRF-462	Ambiguous_tRF
tRF-19-RRJ890JZ	GGTCCCAGGGTGTAAATGGT	tRF-422	Exclusive_tRF
tRF-19-RPM8301Z	GGTAGCGTGGCCGAGCGGT	tRF-416	Exclusive_tRF
tRF-19-RKIP4OF4	GGGGGATTAGCTCAAATGG	Novel-tRF	Exclusive_tRF
tRF-19-RK9P4PJZ	GGGGGTGTAGCTCAGTGGT	Novel-tRF	Exclusive_tRF
tRF-19-R9JP9P1Z	GGTCCCATAGTGTAGCGGT	tRF-441	Exclusive_tRF
tRF-19-R9J890JZ	GGTCCCATGGGTGTAAATGGT	tRF-444	Ambiguous_tRF
tRF-19-R2IP4OF4	GGGGAATTAGCTCAAATGG	Novel-tRF	Exclusive_tRF
tRF-19-R29P4PJZ	GGGGATGTAGCTCAGTGGT	Novel-tRF	Exclusive_tRF
tRF-19-QNR8VPJZ	GCGTTGGTGGTATAGTGGT	tRF-337	Ambiguous_tRF
tRF-19-PS5P4PJ4	GCCCCGATAGCTCAGTCGG	tRF-310	Exclusive_tRF
tRF-19-PNR8YPJZ	GCATTGGTGGTTAGTGGT	Novel-tRF	Ambiguous_tRF
tRF-19-PJ5830JZ	GCAGCGATGGCCGAGTGGT	Novel-tRF	Exclusive_tRF
tRF-19-P4R8YPJZ	GCATGGGTGGTTAGTGGT	Novel-tRF	Ambiguous_tRF

tRF-19-OUR830JZ	GACGAGGTGGCCGAGTGGT	tRF-275	Ambiguous_tRF
tRF-19-OSM830JX	GACCGCGTGGCCTAATGGA	tRF-271	Exclusive_tRF
tRF-19-OR1830JX	GACCCAGTGGCCTAATGGA	tRF-270	Ambiguous_tRF
tRF-19-O6M830JX	GACCACGTGGCCTAATGGA	tRF-269	Exclusive_tRF
tRF-19-I1LQ3RE2	ATGCCCGCATCCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-19-HRMFWRE2	ATCCCCGGCATCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-19-HRMF3RE2	ATCCCCGGCACCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-19-DRJRWMI2	AATCCCACCTCTCGTCGCCA	Novel-tRF	Exclusive_tRF
tRF-19-DR2SN1E2	AATCCCACCGCTGCCACCA	Novel-tRF	Exclusive_tRF
tRF-19-DDZZ4YE2	AAGACTTTTCTCTGACCA	Novel-tRF	Ambiguous_tRF
tRF-19-BZOS4YE2	AACTTGACCGCTCTGACCA	Novel-tRF	Exclusive_tRF
tRF-19-B1RHODE2	AAACCGGGCGGAAACACCA	Novel-tRF	Exclusive_tRF
tRF-19-87R8WPJZ	TCCCTGGTGGTCTAGTGGT	Novel-tRF	Ambiguous_tRF
tRF-19-86V8WP1Z	TCCCATATGGTCTAGCGGT	tRF-534	Exclusive_tRF
tRF-19-86J8WP1Z	TCCCCACATGGTCTAGCGGT	tRF-533	Exclusive_tRF
tRF-19-79MP9PJZ	GTTCCTCGTAGTGTAGTGGT	Novel-tRF	Ambiguous_tRF
tRF-19-6SXMSL24	GGCCGTGATCGTATACTGG	Novel-tRF	Ambiguous_tRF
tRF-19-69M8LOJX	GGCTCCGTGGCGCAATGGA	tRF-368	Exclusive_tRF
tRF-19-6978WPIZ	GGCTCGTTGGTCTAGGGGT	Novel-tRF	Ambiguous_tRF
tRF-19-1SS2PMER	AGTCGGTAGAGCATCAGAC	tRF-118	Exclusive_tRF
tRF-19-18YKISIM	AGTGGTTAGGATTGGCCGC	Novel-tRF	Exclusive_tRF
tRF-19-14PH5BKQ	AGGTGGCACGGAGAATTT	Novel-tRF	Ambiguous_tRF
tRF-19-0P5830JZ	ACCAGGATGGCCGAGTGGT	Novel-tRF	Exclusive_tRF
tRF-18-XRPM46D2	TGCCCGCATCCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-18-V29K9U0H	TAGGATGGGTCTGTGATAG	Novel-tRF	Exclusive_tRF
tRF-18-SP5830D4	GTCAGGATGGCCGAGCGG	Novel-tRF	Ambiguous_tRF
tRF-18-SP583004	GTCAGGATGGCCGAGTGG	tRF-463	Ambiguous_tRF
tRF-18-S5S8R6D2	GTCACGTCGGGTCACCA	Novel-tRF	Exclusive_tRF
tRF-18-S3M83004	GTAGTCGTGGCCGAGTGG	tRF-457	Exclusive_tRF
tRF-18-RPM830D4	GGTAGCGTGGCCGAGCGG	Novel-tRF	Exclusive_tRF
tRF-18-RKIP4OD0	GGGGGATTAGCTCAAATG	Novel-tRF	Exclusive_tRF
tRF-18-RK9P4P04	GGGGGTGTAGCTCAGTGG	tRF-402	Ambiguous_tRF
tRF-18-R29P4P04	GGGGGATGTAGCTCAGTGG	tRF-389	Exclusive_tRF
tRF-18-QNR8VP04	GCGTTGGTGGTATACTGG	Novel-tRF	Ambiguous_tRF
tRF-18-PW5VP04	GCCGTGATCGTATACTGG	Novel-tRF	Ambiguous_tRF
tRF-18-PS5P4P0K	GCCC GGATAGCTCAGTCG	Novel-tRF	Exclusive_tRF
tRF-18-PNR8YP04	GCATTGGTGGTCAGTGG	Novel-tRF	Ambiguous_tRF
tRF-18-P4R8YP04	GCATGGGTGGTCAGTGG	Novel-tRF	Ambiguous_tRF
tRF-18-OUR83004	GACGAGGTGGCCGAGTGG	Novel-tRF	Ambiguous_tRF
tRF-18-HSRVK7D2	ATCCGGGTGCCCCCTCCA	Novel-tRF	Exclusive_tRF
tRF-18-HRH7MSD2	ATCCCACATCCTCGTCGCCA	Novel-tRF	Exclusive_tRF
tRF-18-HRF8X7D2	ATCCCAGCGGTGCCCTCCA	Novel-tRF	Exclusive_tRF
tRF-18-HR6HFRD2	ATCCCAGACGAGCCCCCA	tRF-148	Ambiguous_tRF
tRF-18-HR0VX6D2	ATCCCACCGCTGCCACCA	Novel-tRF	Exclusive_tRF
tRF-18-H7PU4HD2	ATCCTGGCAGTACGCCA	Novel-tRF	Exclusive_tRF
tRF-18-H5S8R6D2	ATCACGTCGGGTCACCA	Novel-tRF	Ambiguous_tRF
tRF-18-EY0VWUD2	ACTTGACCGCTCTGACCA	Novel-tRF	Exclusive_tRF
tRF-18-BS68BFD2	AACC GGCGGAAACACCA	Novel-tRF	Exclusive_tRF
tRF-18-8R6Q46D2	TCCCCGGCATCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-18-8R6546D2	TCCCCGGCACCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-18-86J8WPD4	TCCCACATGGTCTAGCGG	Novel-tRF	Exclusive_tRF
tRF-18-79MP9P04	GTTCCTCGTAGTGTAGTGG	tRF-512	Ambiguous_tRF
tRF-18-6SXMSL00	GGCCGTGATCGTATACTGG	Novel-tRF	Ambiguous_tRF
tRF-18-6978WPDY	GGCTCGTTGGTCTAGGGG	tRF-371	Ambiguous_tRF
tRF-18-1OR6QODB	AGTAAGGTAGCTAAATA	Novel-tRF	Ambiguous_tRF
tRF-18-1KVUY9DZ	AGGGGTATGATTCTCGGT	tRF-94	Exclusive_tRF
tRF-18-18YKISD8	AGTGGTTAGGATTGGCCG	tRF-133	Exclusive_tRF
tRF-18-0RER9LD2	ACCCCACTCTGGTACCA	Novel-tRF	Ambiguous_tRF
tRF-18-0P583004	ACCAGGATGGCCGAGTGG	Novel-tRF	Exclusive_tRF

tRF-17-V29K9UO	TAGGATGGGGTGTGATA	Novel-tRF	Ambiguous_tRF
tRF-17-SP5830P	GTCAGGATGGCCGAGTG	Novel-tRF	Ambiguous_tRF
tRF-17-SP5830K	GTCAGGATGGCCGAGCG	Novel-tRF	Ambiguous_tRF
tRF-17-RKIP4OI	GGGGGATTAGCTCAAAT	Novel-tRF	Exclusive_tRF
tRF-17-R29P4PP	GGGGATGTAGCTCAGTG	Novel-tRF	Exclusive_tRF
tRF-17-QNR8VPP	GCGTTGGTGGTATAGTG	Novel-tRF	Ambiguous_tRF
tRF-17-PSJR852	GCCCCCATCCTCCACCA	Novel-tRF	Ambiguous_tRF
tRF-17-PNR8YPP	GCATTGGTGGTTCAGTG	Novel-tRF	Ambiguous_tRF
tRF-17-KSPM852	CCCCGGCATCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-17-KSP1852	CCCCGGCACCTCCACCA	Novel-tRF	Exclusive_tRF
tRF-17-HR0VX6J	ATCCCACCGCTGCCACC	Novel-tRF	Exclusive_tRF
tRF-17-8SOUPR2	TCCCGGACGAGCCCCCA	Novel-tRF	Ambiguous_tRF
tRF-17-863IP52	TCCCACCGCTGCCACCA	Novel-tRF	Exclusive_tRF
tRF-17-6SXMSLN	GGCCGTGATCGTATAGT	Novel-tRF	Ambiguous_tRF
tRF-17-5BF900F	GAGAAAGCTCACAAAGAA	Novel-tRF	Ambiguous_tRF
tRF-17-08Q2B52	ACCGGGCGGAAACACCA	Novel-tRF	Exclusive_tRF
tRF-16-V29K9UE	TAGGATGGGGTGTGAT	Novel-tRF	Ambiguous_tRF
tRF-16-SP5830D	GTCAGGATGGCCGAGC	tRF-461	Ambiguous_tRF
tRF-16-RKIP4OB	GGGGGATTAGCTCAAAT	Novel-tRF	Ambiguous_tRF
tRF-16-QNR8VPE	GCGTTGGTGGTATAGT	Novel-tRF	Ambiguous_tRF
tRF-16-PNR8YPE	GCATTGGTGGTTCAGT	Novel-tRF	Ambiguous_tRF
tRF-16-OUR830E	GACGAGGTGGCGAGT	Novel-tRF	Ambiguous_tRF
tRF-16-K8QJP1B	CCCGGGCGGCACCA	Novel-tRF	Exclusive_tRF
tRF-16-K8KDP1B	CCCGGCCAACGCACCA	Novel-tRF	Exclusive_tRF
tRF-16-K8J7K1B	CCCGGCATCTCCACCA	Novel-tRF	Ambiguous_tRF
tRF-16-K827K1B	CCCGGCACCTCCACCA	Novel-tRF	Ambiguous_tRF
tRF-16-3KMB01B	CCGGGCGGAAACACCA	Novel-tRF	Exclusive_tRF

Table 5. Nested-tRFs in prostate cancer cannot be quantified using the LNA-based method described in [1]. A small example showing nested-tRFs that share a common suffix and are present in the RNA-seq datasets of [1]. The common suffix is shown in boldface. This group of 20 tRFs is one of 414 such groups comprising a grand total of 1,627 of the 3,341 tRFs that are present in the 11 datasets of [1]. The full collection of nested-tRFs is listed in Supp. Table 4.

tRF sequence	What kind of tRF?	tRF license plate
CCGGCTCGAAGGACCA	Novel-tRF	tRF-16-3JWB61B
TCCGGCTCGAAGGACCA	tRF-545	tRF-17-884U1D2
ATCCGGCTCGAAGGACCA	Novel-tRF	tRF-18-HSQSD2D2
AATCCGGCTCGAAGGACCA	Novel-tRF	tRF-19-DR69OKE2
GAATCCGGCTCGAAGGACCA	tRF-266	tRF-20-OMMIL0O6
CGAATCCGGCTCGAAGGACCA	Novel-tRF	tRF-21-LE3JWB61B
TCGAATCCGGCTCGAAGGACCA	Novel-tRF	tRF-22-WB884U1D2
TTCGAATCCGGCTCGAAGGACCA	Novel-tRF	tRF-23-YUHSQSD2D2
GTTCGAATCCGGCTCGAAGGACCA	Novel-tRF	tRF-24-7SDR69OKE2
CGCTGGTTCGAATCCGGCTCGAAGGACCA	Novel-tRF	tRF-29-LY7SDR69OKE2
TCGCTGGTTCGAATCCGGCTCGAAGGACCA	Novel-tRF	tRF-30-WIR9OMMIL0O6
TTCCGGCTCGAAGGACCA	Novel-tRF	tRF-18-YSQSD2D2
ATTCCGGCTCGAAGGACCA	Novel-tRF	tRF-19-IR69OKE2
GATTCCGGCTCGAAGGACCA	Novel-tRF	tRF-20-59MIL0O6
CGATTCCGGCTCGAAGGACCA	Novel-tRF	tRF-21-LN3JWB61B
TCGATTCCGGCTCGAAGGACCA	tRF-566	tRF-22-WE884U1D2
TTCGATTCCGGCTCGAAGGACCA	Novel-tRF	tRF-23-YUYSQSD2D2
GTTCGATTCCGGCTCGAAGGACCA	Novel-tRF	tRF-24-7SIR69OKE2
CGCTGGTTCGATTCCGGCTCGAAGGACCA	Novel-tRF	tRF-29-LY7SIR69OKE2
TCGCTGGTTCGATTCCGGCTCGAAGGACCA	Novel-tRF	tRF-30-WIR959MIL0O6