RNAhybrid of the three gene-microRNA outlier pairs:

1. gene ENSG00000151553 / microRNA 199b-3p

RNAhybrid -
s3utr_human -m100000-t examples/ENSG00000151553.
fasta -qRNAhybrid/199b-3p.fasta

result:

target: 10 length: 79289

miRNA: hsa-miR-199b-3p

length: 22

mfe: -29.3 kcal/mol p-value: 0.998235

position 54049

target 5' G C UGCGGAA G 3'

GACUG UGUGC GGACUGCUGU UUGGU ACACG UCUGAUGACA

miRNA 3' A U 5'

2. gene ENSG00000157778 / microRNA 500a-5p

RNAhybrid -
s3utr_human -m100000-t examples/ENSG00000157778.
fasta -qRNAhybrid/500a-5p.fasta

result:

target: ENSG00000157778

length: 3674

miRNA: hsa-miR-500a-5p

length: 23

mfe: -28.5 kcal/mol p-value: 0.593799

position 1725

CACCCAGGUGGU GUGGGUCCAUCG

miRNA 3' AGA UUCCUAAU 5'

3. gene ENSG00000143195 / microRNA 199b-3p

RNAhybrid -s 3utr_human -m 100000 -t examples/ENSG00000143195.fasta -q RNAhybrid/199b-3p.fasta

result:

target: c hromosome:GRCh38:1:166895111:166976140:-1

length: 81032

miRNA: hsa-miR-199b-3p

length: 22

mfe: -28.3 kcal/mol p-value: 0.999884

position 41570

target 5' G CU G C A 3'

AGCCA GUG GCAGGCU CUG UUGGU UAC CGUCUGA GAC