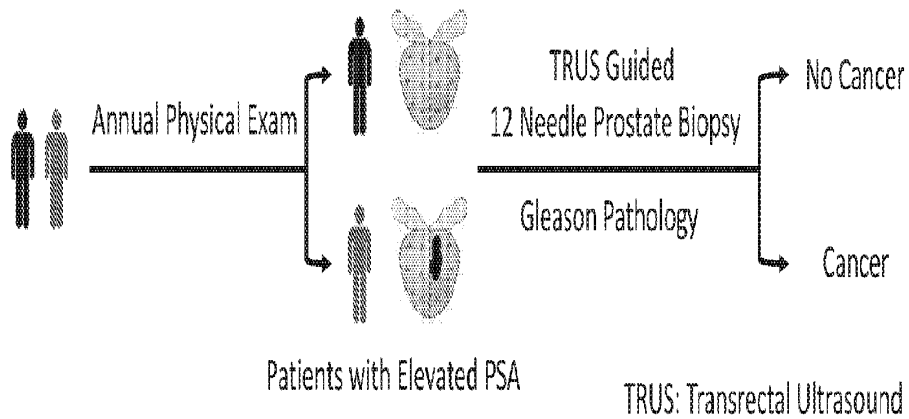




- Prostate Specific Antigen (PSA)
 - Moderate specificity
 - Epidemiological data shows that 67% of prostate tumors diagnosed by PSA are indolent and will never be clinical relevant.
- Gleason Grade: Pathological staging of prostate tumors
 - Lacks the precision to discriminate between indolent and aggressive tumors

FIG. 1

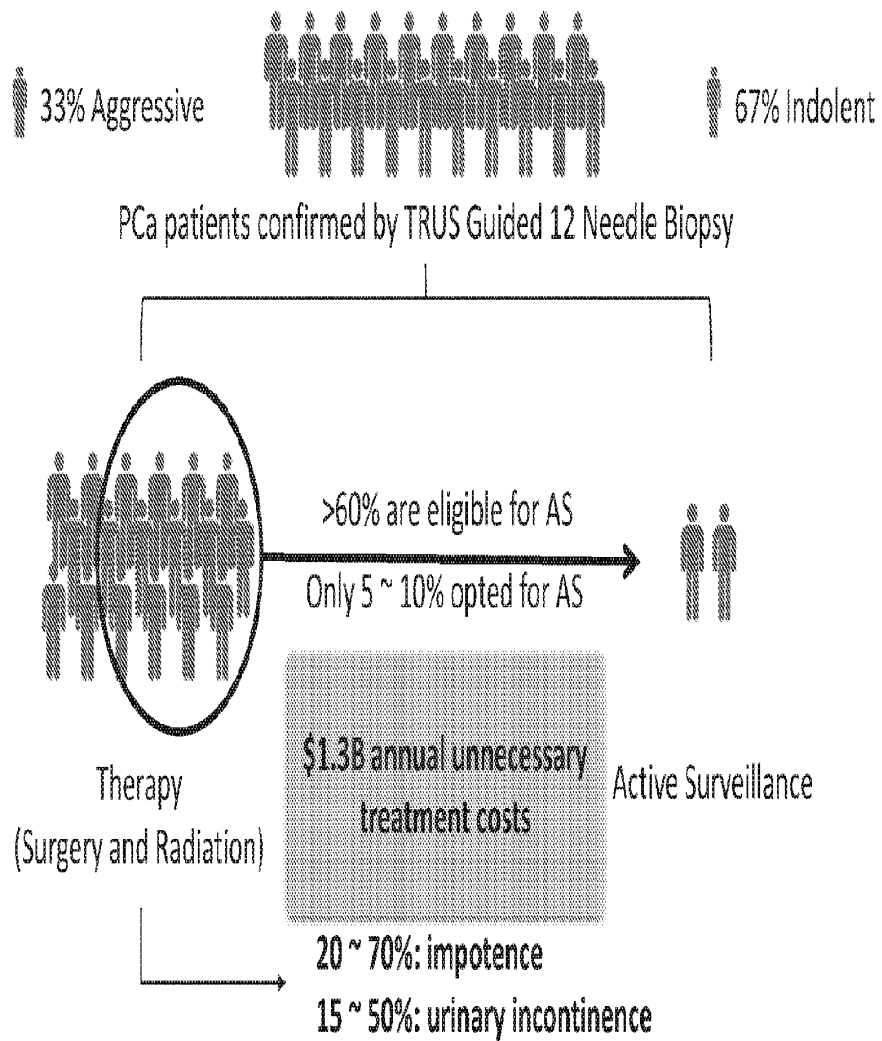


FIG. 2

Step 1: Extraction of ncRNAs from standard FFPE core needle biopsies that currently used to assess presence or absence of tumors and Gleason Score

Step 2: Performed microarray analyses (Affymetrix GeneChip® miRNA 3.0 Array)

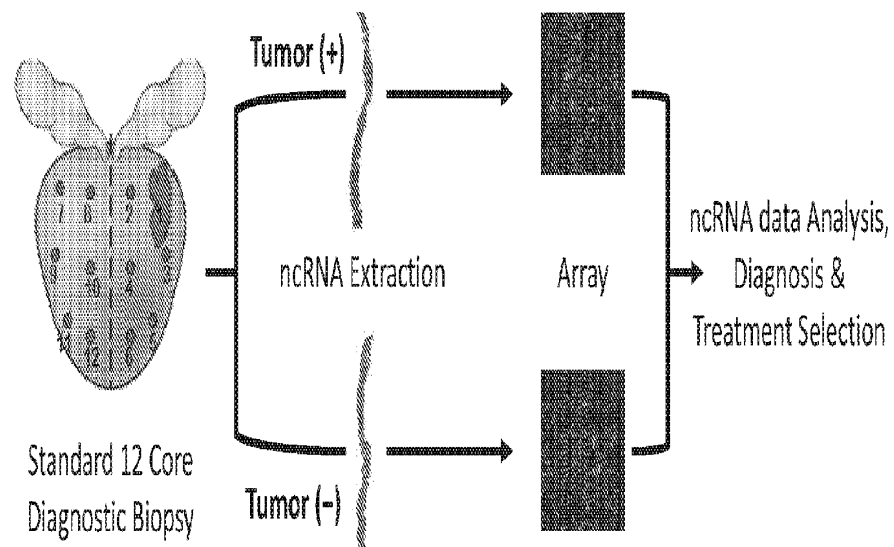


FIG. 3

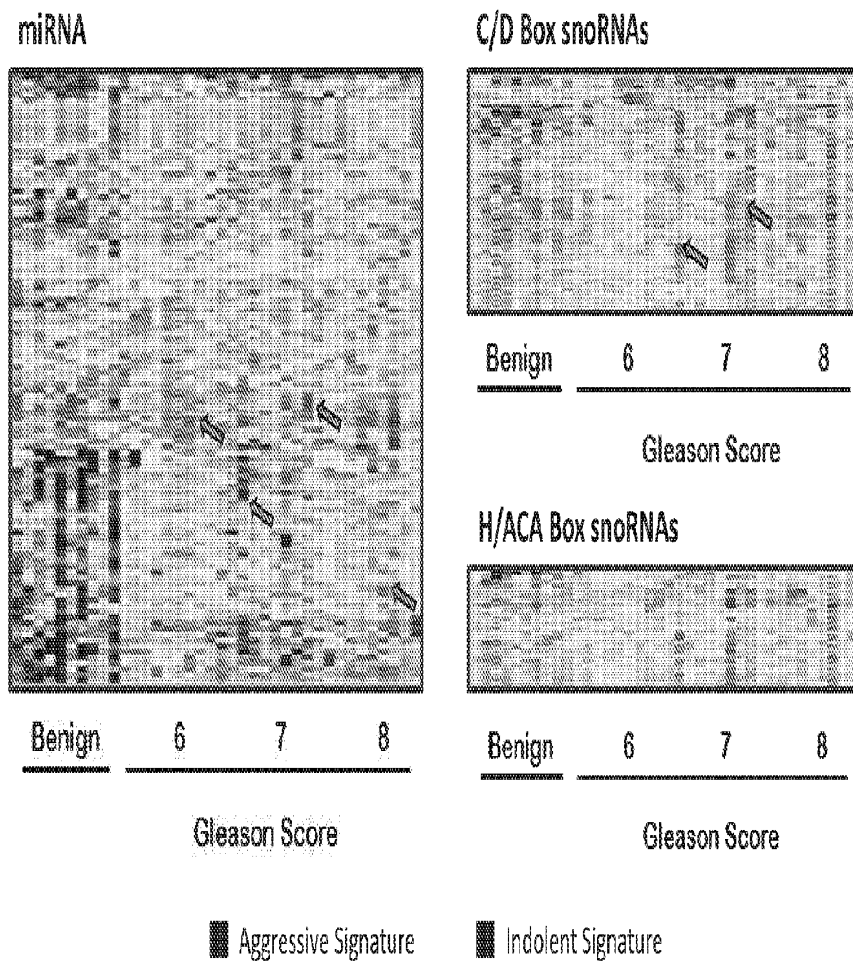
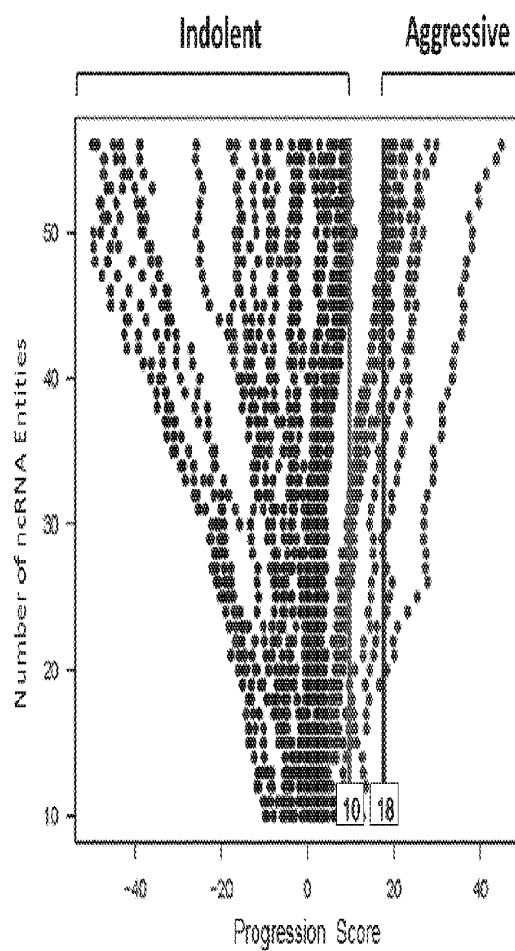
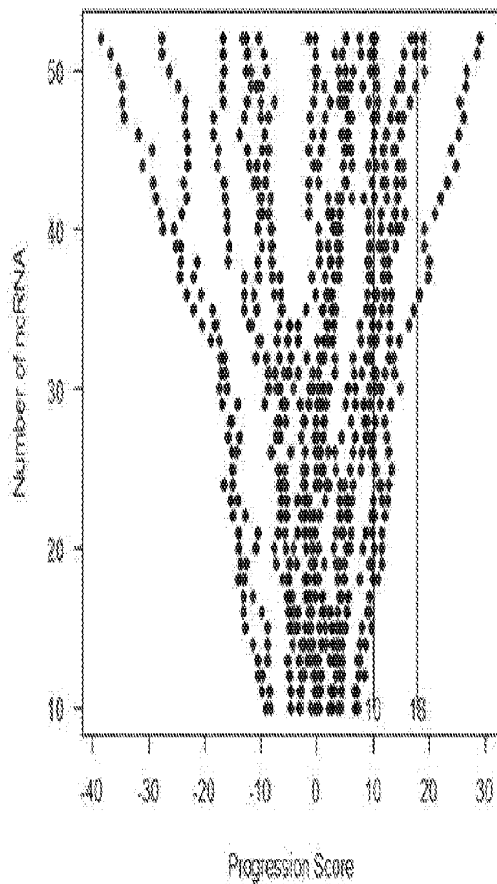


FIG. 4



Indolent: Progression Score <10 Aggressive: Progression Score >18

FIG. 5A



Sample classification:

(out of 17 patients)

- 2 classified as aggressive (PS > 18)
- 4 suspicious (10 < PS < 18)
- 11 classified as indolent (PS < 10)

Out of sample predication error:

- 1 indolent patient classified as aggressive (1 false positive)
- No aggressive patients classified as indolent (No false negatives)

➔ 65% are predicted to have indolent disease

FIG. 5B

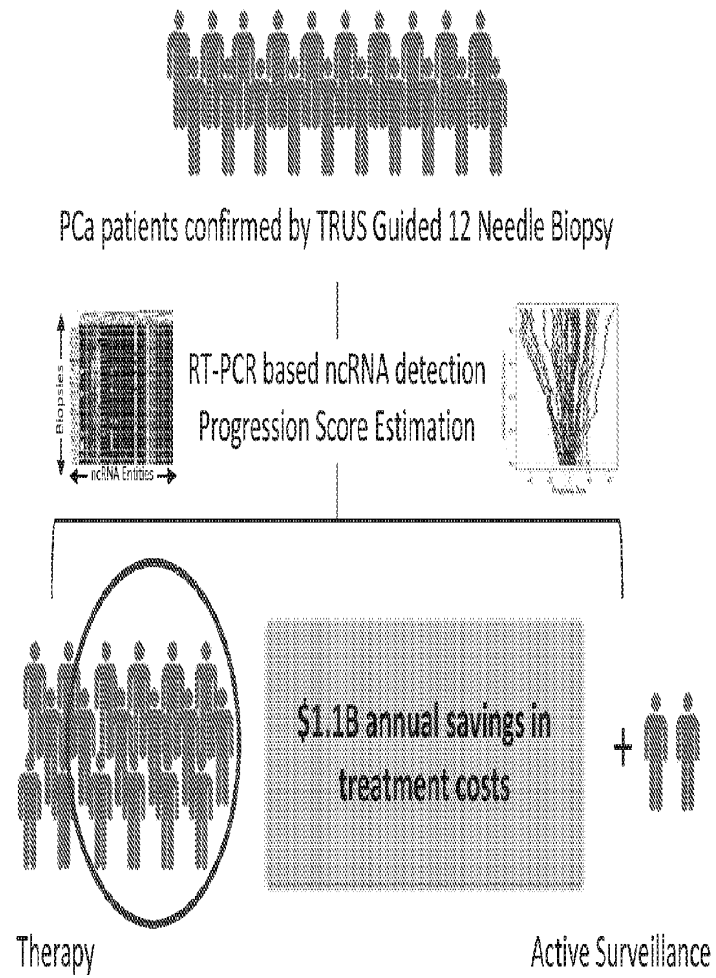
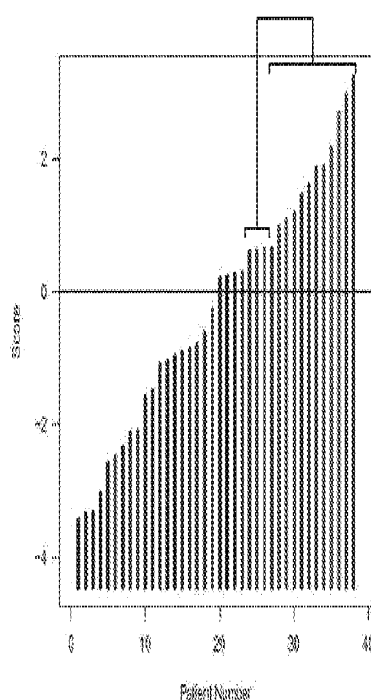


FIG. 6

Waterfall Plot of Progression Scores



- Progression score calculated using 56 miRNAs and snoRNAs
- 38 prostate biopsy samples; one out of sample error (false positive).

FIG. 7

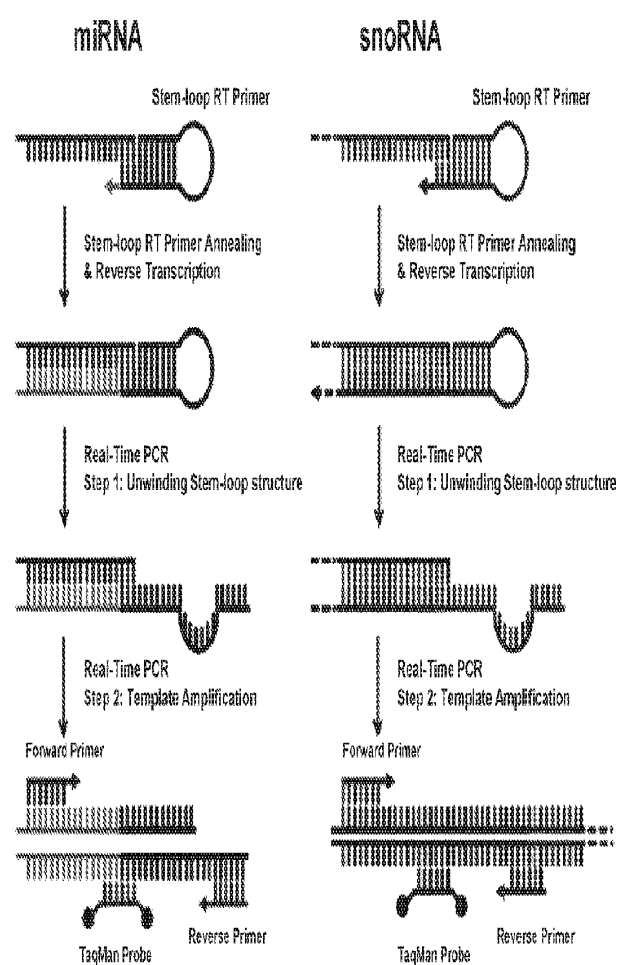


FIG. 8

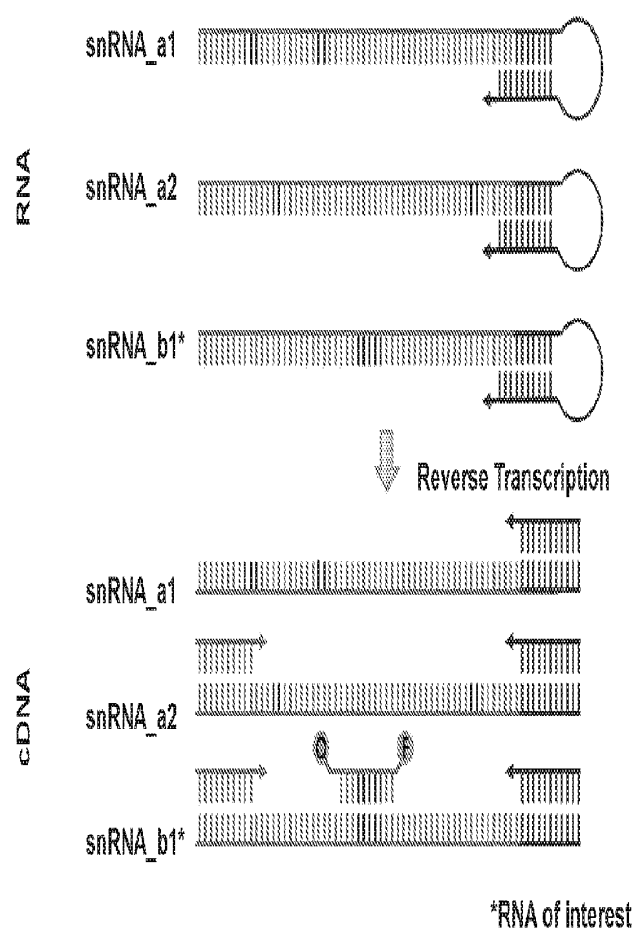


FIG. 9

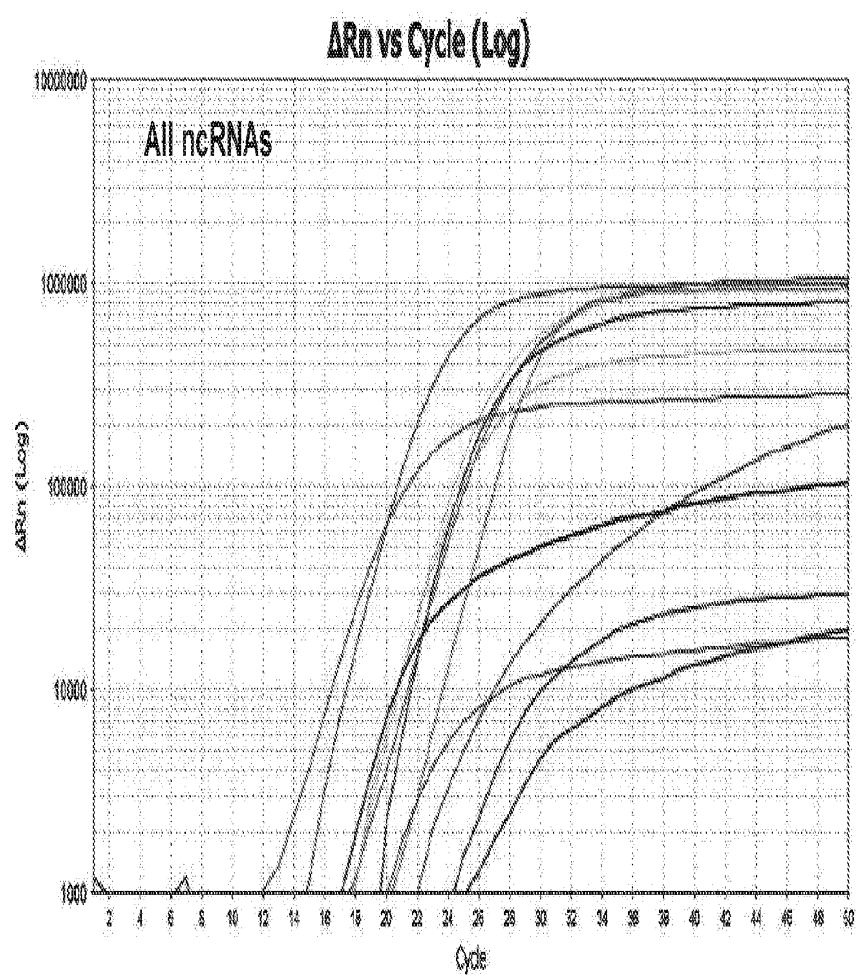


FIG. 10

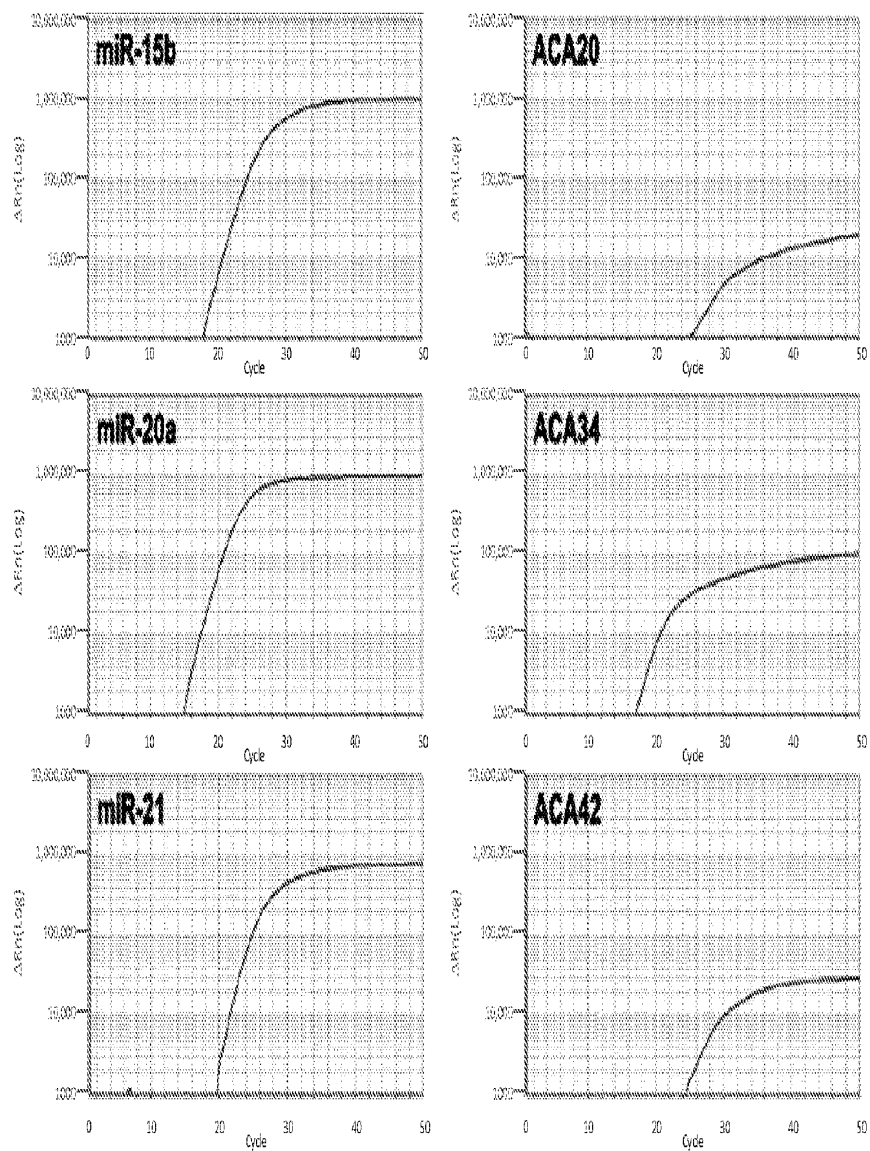


FIG. 10 (continued)

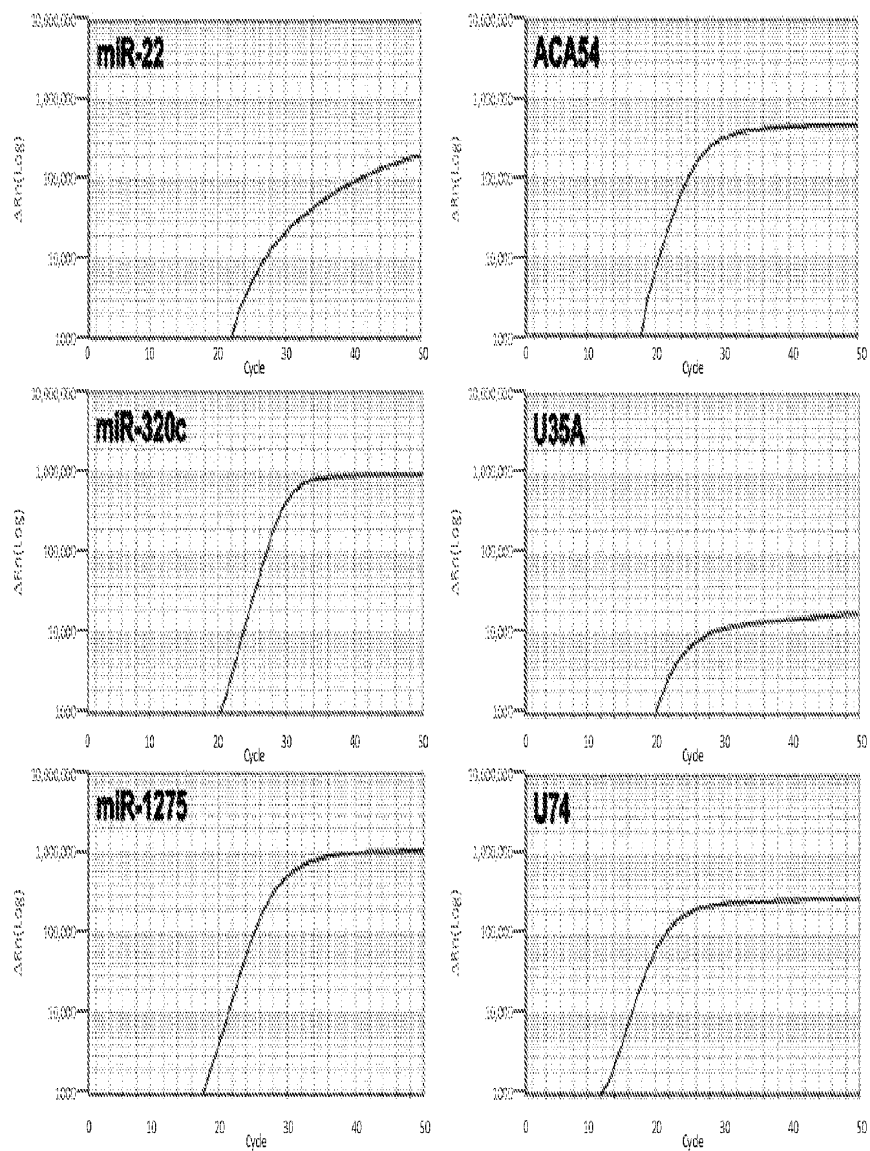


FIG. 10 (continued)