

Claims

1. A method for detecting hand-foot-and-mouth disease (HFMD), the method comprising determining the presence of a miRNA in a saliva sample, wherein the presence of the miRNA in the saliva sample is indicative of HFMD.
2. The method according to claim 1, wherein the presence of the miRNA in the saliva sample is determined with at least one oligonucleotide primer or probe that is substantially complementary to a part of said miRNA.
3. The method according to claim 2, wherein the miRNA is any one selected from the group consisting of miR-18b, miR-125a, miR-145, miR-155, miR-221, miR-324 and miR-335.
4. The method according to claim 3, wherein the method comprises determining the presence of at least two of the miRNA sequences in the group.
5. The method according to claim 3, wherein the group further consists of miR-23a and miR-142.
6. The method according to claim 5, wherein the method comprises determining the presence of miR-18b, miR-145, miR-155 and miR-324.
7. The method according to any one of the preceding claims, wherein the amount of the saliva sample is about 50 μ l.
8. The method according to any one of the preceding claims, wherein the presence of the miRNA in the saliva sample is determined by:
 - (a) centrifuging the saliva sample to get the supernatant, and filtering the supernatant;
 - (b) extracting RNAs from the filtered supernatant obtained in step (a);

- (c) performing a reverse transcription reaction using the RNAs extracted in step (b) to obtain a cDNA solution;
- (d) performing a PCR amplification reaction using the cDNA solution obtained in step (c); and
- 5 (e) detecting the PCR products with a fluorescence quantitative PCR instrument so as to obtain the expression level of miRNAs in the medium.

9. A method for aiding in categorizing, diagnosing or determining prognosis in a patient with HFMD, the method comprising determining the presence of a miRNA in a saliva
10 sample.

10. The method according to claim 7, wherein the miRNA is any one selected from the group consisting of miR-18b, miR-125a, miR-145, miR-155, miR-221, miR-324 and miR-335.

15 11. The method according to claim 8, wherein the miRNA is any one selected from the group consisting of miR-23a and miR-142.

12. Use of an effective amount of an agent which modulates the level of at least one miRNA in a target cell. wherein the miRNA is any one selected from the group consisting of
20 miR-18b, miR-125a, miR-145, miR-155, miR-221, miR-324, miR-335 miR-23a and miR-142 in the manufacture of a medicament for the treatment of HFMD.

13. A kit for diagnosing HFMD in a human, the kit comprising an assay for determining the presence of a miRNA in a saliva sample and at least one oligonucleotide primer or probe
25 that is substantially complementary to a part of a miRNA, wherein the miRNA is any one selected from the group consisting of miR-18b, miR-125a, miR-145, miR-155, miR-221, miR-324, miR-335, miR-23a and miR-142.