

DATA SHEET

Versions: 01

Revision date: 29/11/2023

1. Identification

Product name: miR-16 assay kit

Reactions: 100 rxn

Cat. No.: PRA- miR-16M

2. Description

microRNAs are small molecules that are made of RNA and are able to bind to mRNAs and regulate the amount of translation. These molecules are involved in the pathogenesis of many diseases. Today, these molecules are very important in research and treatment. miR-16 is one of the most well-known molecules whose role has been highlighted in some cancers and infectious diseases. The hsa-miR-146a-5p measurement kit works by using a stem loop and contains all materials, including the necessary materials for the synthesis of hsa-miR-16-5p specific cDNA.

3. Kit Contents

Component	Cat. no	Quantity
RT Master mix	PRA-RTMM	1 ml
Activator A	PRA-KLSB	100 µl
cDNA Master mix	PRA-cDMM	1 ml
hsa-miR-16-5p RT primer	PRA-HBt	100 µl
Positive Control	PRA-MM219aPC	10 µl
DNase/RNase free water	PRA-DW	1 ml

4. Storage specifications

All microRNA kits components can be stored at 4°C temperature.



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5. Applications

All molecular biology applications, such as:

6. Assay Procedure

To perform the test, cDNA must be synthesized specifically for miR-16-5p according to the following steps:

1. Transfer 10 μ l of cDNA Master mix to the appropriate microtube.
 2. Add 1 μ l of hsa- miR-16-5p RT primer to the microtubes.
 3. Add 5 μ l of purified microRNA to the microtubes.
 4. Add 4 μ l of DNase/RNase free water to the microtubes.
 5. Mix the microtubes and with a short microfuge all the contents at the end
- Collect the microtube and run the temperature program below:

Cycle	Temperature	Time
1	25 °C	10 min
1	47 °C	60 min
1	95 °C	3 min

To perform Real-Time PCR, apply the following:

1. Transfer 10 μ l of RT Master mix to the appropriate microtube.
2. Add 1 μ l of Activator A to the microtubes.
3. Add 5 μ l of cDNA made in the previous step, positive control and distilled water (as negative control) to the microtubes.
4. Add 4 μ l of DNase/RNase free water to the microtubes.

Run the following temperature program in the Real-Time PCR machine:

Cycle	Temperature	Time
1	95 °C	2 min
40	95 °C	15 sec
	60 °C	25 sec

Reading is done in the green channel (SYBR Green).

- Samples between cycle 35 and 40 should be considered suspicious and repeated.



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7. Safety

- The solutions used in the kit have oxidizing and acidic properties.
- Avoid direct contact with skin and eyes.
- In case of contact with the mentioned tissues, wash with plenty of water and go to the nearest medical center.

8. Quality Certifications

9. Further information

- This product is developed, designed, and sold exclusively only for research purposes use.
- The product was not tested for use in diagnostics or for drug development.
- It is not suitable for administration to humans or animals.

10. Other Kits

microRNA:

mir 16, mir 21, mir 146, mir 155, mir 155a, mir 185, mir 194, mir 196b, mir 219a
mir 383, mir 568, mir 2113, mir-U6

NOTE

All products have been produced by Karmania Pars Gene company in Iran

