7G One® PP Mix

【Catalogue Number】 7G1-016

【Packing Information】 600 μL/ bottle

【Storage】 Stored at 2-8°C for 2 years.

Stable at room temperature for 1 month in shipment.

【Description】

7G One® PP Mix is a POCT brick specially designed for "Dropper PCR", which can be easily set up a qPCR reaction with the Self-Collection Tube and 7G One® EnMix bricks. During the use process, it does not rely on professional personnel,pipettes and any instruments. The dropper bottle contains a primer-probe mix with 1 or 2 Target Genes and IPC gene. The probe of external internal positive control (IPC) is labeled with ROX and the amplification curve is yellow, which can monitor the whole procedures including reagents, operation,inhibitor and qPCR cycler, to avoid false negative results.The probe of target gene probe is labeled with VIC or FAM, and the amplification curve is green of VIC or blue of FAM. Using the POCT bricks, target gene of a certain pathogen or gene can be quickly detected with 1-step RT-qPCR technology.

【Using Tips】

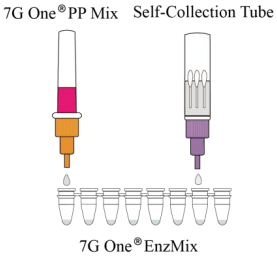
We offer a list with hundreds of 7G One® PP Mix with designed sequences of primer-probe sets to test the target pathogens for animals, plants, and humans.,and each sequence set would be named one sequence number(S/N). If our listed sequences cannot meet your needs, you can

prepare your own 7G One® PP Mix with 4×7G One® PP Mix-IPC and your own primer-probe sets as follows.

-Preparation of 7G One® PP Mix in a dropper bottle :The recommended final concentration is 0.4–0.8 μM for primers and 0.1 μM for probes. If detection sensitivity is insufficient, please adjust the concentrations. Add 300 μL of 4×primer-probe premix to the 4×7G One® PP Mix-IPC(S/N:IPC300） and mix thoroughly to prepare the 7G One® PP Mix.

【Protocol】

1.Cut open the 8-strips tubes and caps of the 7G One® EnzMix according to the required quantity.



2.Remove the transparent dropper cap of the dropper bottle with the template and drop 1 drop into the tubes directly.

3.Remove the transparent dropper cap of the dropper bottle with the 7G One® PP Mix and drop 1 drop into the tubes.

4.Please cover the test tube cap and lightly flick the tube wall. Fully mix and place it in the qPCR cycler.

【Results Interpretation】

1. The prerequisite of interpretation

-If the yellow amplification curve appears, but the Cq value of IPC-ROX is > 35， or no yellow amplification curve appears with no Cq value of

IPC-ROX.The assay run is invalid. Please check the whole procedures including reagents, operation and qPCR cycler.

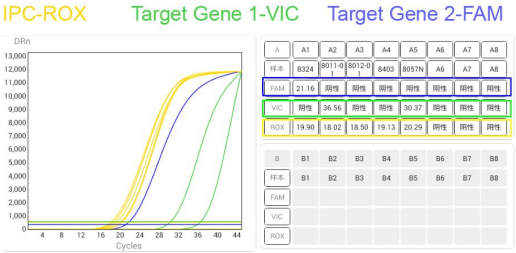
-If the yellow amplification curve appears, and the Cq value of IC-ROX is ≤ 35. The assay run is valid.

-In NTCs tests under the valid run, the green amplification curve appears and the Cq value was generated in Target Gene-VIC or FAM. The result is false positive caused by contamination. Please remove the contamination from the environment and reagent consumables.

-In NTCs tests under the valid run, no green amplification curve appears with no Cq of Target Gene-VIC.No false positive is caused by contamination.

2. Results interpretation

-Under the prerequisite of ensuring valid assay runs and no false positives caused by contamination, the results can be interpreted as follows.



Negative(-): If the green (or blue) amplification curve appears,but the Cq value of Target Gene-VIC(or FAM) is > 40; or no green （or blue)

amplification curve appears with no Cq of Target Gene-VIC (or FAM). The result is negative.

Positive(+): If the green (or blue) amplification curve appears,and the Cq value of Target Gene-VIC (or FAM) is 15 < Cq <35. The result is positive .

Retest: If the green (or blue) amplification curve appears,but the Cq value of Target Gene is Cq ≤15 or 35 ≤Cq≤40. Retest is needed.

【Retest】

1.When the Cq value of Target Gene is Cq ≤15, it may be due to strong positivity caused by very high target concentration, or false positives caused by baseline disturbance due to insufficient mixing.

You should drop 2 drops of the current template into a new self-collection tube, dilute the template about 40 times, and then retest.

If no green（or blue) amplification curve appears, the result is negative.

If the green (or blue) amplification curve appears again the result is **strong positive (+++).**

2.When the Cq value of Target Gene is 35 ≤ Cq ≤ 40, the target concentration is very low at this point and requires 2 retests to confirm.

If no green (or blue) amplification curve appears with no Cq in the 2 retests, the result is negative.

If the green (or blue) amplification curve only appears once in the 2 retests, the result is **weak positive（±）.**