

TOROIVD® PRRSV-2 Test Tube

【Catalogue Number】 TS-8010-01

【Packing Information】 8 Tests/Bag

【Components】

Freeze-dried mixture Reverse transcriptase, RNase Inhibitor, the primer-probe sets of ORF6 gene and IC gene, and IC DNA in the 0.2 mL 8-Strips qPCR tube.

【About PRRSV-2】

Porcine reproductive and respiratory syndrome (PRRS) is characterised by reproductive failure of sows and respiratory problems of piglets and growing pigs, caused by the PRRS virus (PRRSV). The reproductive syndrome is recognised by late-gestation abortions and early or delayed farrowings that contain dead and mummified fetuses, stillborn pigs, and weak-born pigs. PRRSV is a single-stranded positive-sense RNA virus classified two different species: PRRSV1 and PRRSV2. Most PRRSV isolates from South America and much of Asia are of species 2, PRRSV2. RT-qPCR is an excellent, highly sensitive, specific and rapid technique for PRRSV2 detection and is very useful for screening and confirmation of suspected cases under a wide range of circumstances.

【Test Principle】

The test tube is based on in vitro RT-qPCR combining fluorescent probing. The primer-probe sets of ORF6 gene of PRRSV-2 was from China National Standard(GB/T 35912-2018) [1], and were found to be highly specific for PRRSV-2. The probes were attached by fluorophores at the 5' end as reporter with VIC for ORF6 Gene of PRRSV-2, and quencher at 3' end respectively. The test tube has internal control DNA and primer-probe sets, and the probes with fluorophores ROX attached at 5' end as reporter. During the RT-qPCR procedures, the DNA polymerase cleaves the probe at the 5' end and separates the reporter dye from the quencher dye when the probes hybridize to the target DNA. This cleavage results in the fluorescent signal generated by the cleaved reporter dye, which is monitored by the qPCR cyclers. Measuring the fluorescence intensities during qPCR allows the qualitative detection of PRRSV-2 in specimens. The internal control is used to monitor the whole procedures including reagents, operation and qPCR cycler, to avoid false negative results.

【Results Interpretation】

Yellow-Plot-ROX: IC monitored RT-qPCR assay Green Plot-VIC: ORF6 Gene of PRRSV-2





-If the IC -ROX is negative (No Cq or $Cq > 40$), the RT-qPCR assay run is invalid. Retest is needed.

-If the IC -ROX is positive ($Cq \leq 40$), the RT-qPCR assay run is valid. The results are explained as follow:

1. If the ORF6 Gene-VIC is negative (No Cq or $Cq > 40$), The result is negative of PRRSV-2.
2. If the ORF6 Gene-VIC is positive ($15 < Cq < 35$), The result is positive of PRRSV-2.
3. If the ORF6 Gene--VIC is positive ($Ct < 15$ or $35 < Ct < 40$), Retest is needed.

【Storage】

Store the test tube at 2-8°C in a dry environment for 24 months.

After opening, the remaining test tubes should still be sealed in a dry environment.

It is not recommended to use moisture absorbing test tube.

【References】

- [1] Real-time RT-PCR method for detection of porcine reproductive and respiratory syndrome virus.
China National Standard, GB/T 35912-2018.