

ViroReal® VZV

Order No.: RTGM20V

Unit: 50 reactions



Background: Varicella zoster virus (VZV), also called human herpes virus type 3 (HHV-3) is a double-stranded DNA virus. The VZV is found worldwide (> 95% of persons are seropositive) and is transmitted by droplet infection. Primary infection with VZV causes chickenpox. After primary infection, VZV remains dormant in sensory nerve roots for life. Upon reactivation, the virus migrates down the sensory nerve to the skin, causing herpes zoster (also called shingles). Shingles generally affects the elderly and people with an immune deficiency.

PCR-platforms: ViroReal® VZV is developed for the ABI PRISM® (Fast) 7500 instrument (Thermo Fisher Scientific), Mx3005P® QPCR System (Agilent), LightCycler® 1.2/1.5/2.0 and 480 instruments (Roche), but is also suitable for other real-time PCR instruments. BactoReal®, ParoReal and ViroReal® assays detecting bacterial, parasitic and viral DNA are optimized to run under the same thermal cycling conditions and with the same amplification mix.

Description: ViroReal® VZV is based on the amplification and detection of the ORF29 coding for a single-stranded DNA-binding protein gene of VZV using real-time PCR (detection in FAM channel, 530 nm). It allows the rapid and sensitive detection of VZV from DNA samples purified from blood, biopsies, cerebrospinal fluid, and swabs (e.g. with the QIAamp DNA Mini Kit or QIAamp DSP Virus Kit).

Content: ViroReal® VZV contains primers and probes for testing up to 50 samples. Furthermore, it contains a positive control sample for VZV and a manual. The amplification mix is not included, see below. Store components at -20°C and protect from light.

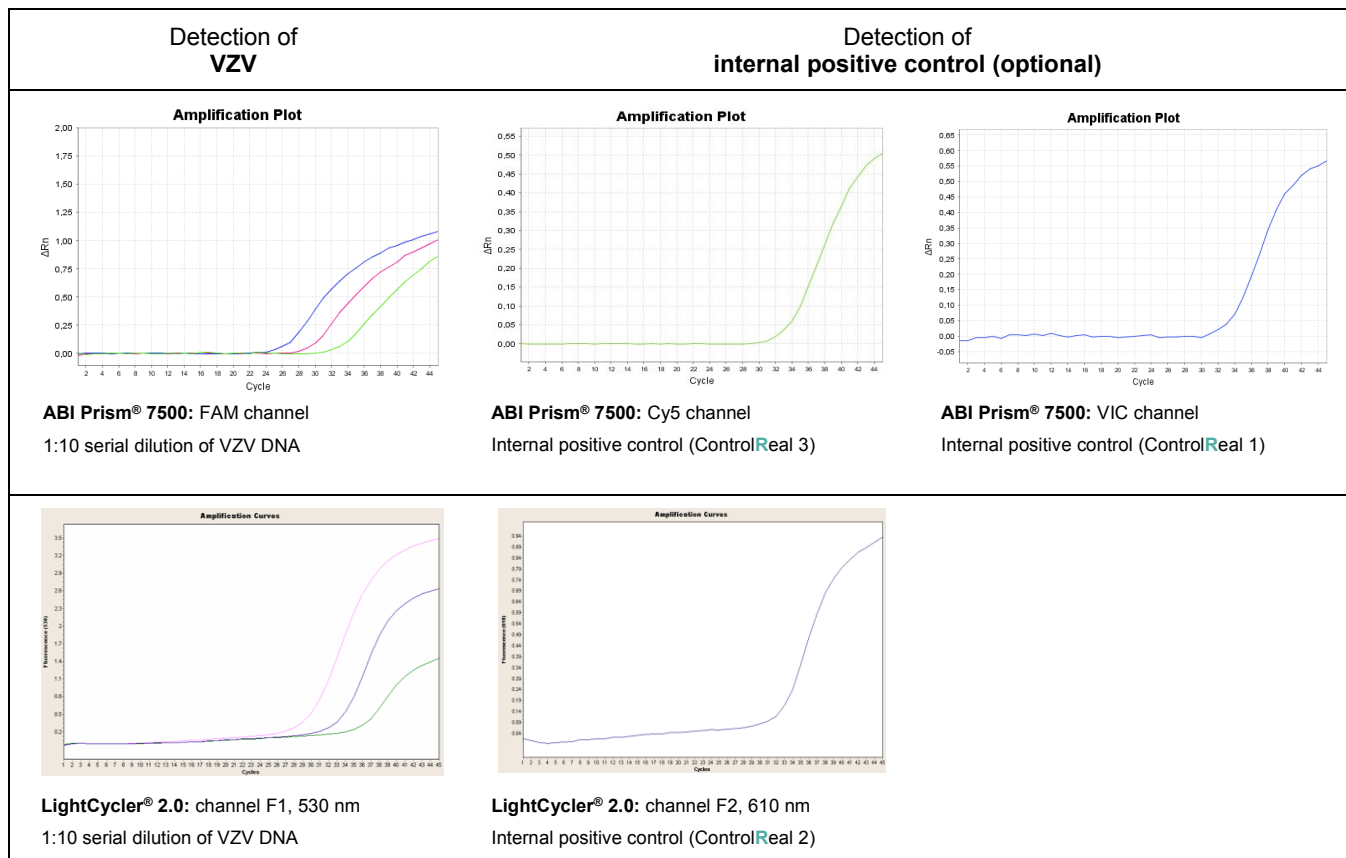
Sensitivity and specificity: ViroReal® VZV has a sensitivity (defined as the smallest amount of template copies that can be detected) of 5 template copies/PCR and is specific for VZV.

Internal positive control (IPC) - not included, optional: ControlReal or Internal Positive Control Assays exclude false-negative interpretation of results caused by inhibition of real-time PCR. Control assays are performed in a multiplex-PCR with ViroReal® VZV.

- ControlReal assays 1, 2 or 3 (order no. RTGMCR-1, 2 or 3) contain primers, a probe and an internal control PCR target included in the assay mix.
- Internal Positive Control Assays 1, 2 or 3 (order no. RTGMIPC-1, 2 or 3) contain primers, a probe and an internal control PCR target in an extra tube (for control of DNA extraction and PCR inhibition).

| PCR Platform | Recommended Amplification Mix | Order No. Control Assays (Optional) | Detection Channel | |
|---|--|-------------------------------------|-------------------|----------|
| | | | IPC | Pathogen |
| ABI PRISM® 7500 (Fast) Mx3005P® QPCR System LightCycler® 480* | TaqMan® Fast Advanced Master Mix (Thermo Fisher Scientific) | RTGMCR-1 / RTGMIPC-1 | VIC / HEX | FAM |
| | | RTGMCR-3 / RTGMIPC-3 | Cy5 | |
| LightCycler® 1.2/1.5/2.0 | LC™-FastStart DNA Master Kit Hybridisation Probes (Roche Diagnostics) | RTGMCR-2 / RTGMIPC-2 | F2, 610 nm | F1 |

*For LightCycler® 480 RTGMCR-3 or RTGMIPC-3 is recommended



References: Mueller NH, Gilden DH, Cohrs RJ, Mahalingam R, Nagel MA. 2008. Varicella zoster virus infection: clinical features, molecular pathogenesis of disease, and latency. *Neurol Clin.* 26:675-697.

For research use only. Not for use in diagnostic procedures. The product is not intended to provide information for the diagnosis, prevention, or treatment of a disease.

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