



Zika virus PCR-standard

This standard serves as Zika virus positive control material with defined concentration to test and validate PCR diagnostics for Zika virus. Zika virus strain MR766 was kindly provided by Dr. Maria João Alves (CEVDI/INSA National Institute of Health Dr. Ricardo Jorge, Portugal).

Use

The vial you receive contains cell culture supernatant of Zika virus (strain MR766) infected Vero E6 cells, aliquoted and freeze-dried. Virus was inactivated by heat treatment and additional γ -irradiation. No remaining infectivity could be proven.

Prior to RNA-extraction the freeze-dried material must be reconstituted in 100 μ L aqua bidest.

Concentration

Based on an elution volume of 60 μ L in the RNA-extraction protocol, quantification by 3 different real-time PCR assays revealed the following results

Assay	comment	Cq value/3 μ L
Faye et al.	Zika virus specific	20.1 \pm 0.1
in-house PCR*	Zika virus specific	22.4 \pm 0.1
Patel et al.	Flavivirus screening PCR	22.9 \pm 0.1
RealStar® Zika RT-PCR Kit 1.0	Zika virus specific	20.8 \pm 0.1

- Faye O, Faye O, Diallo D, Diallo M, Weidmann M, Sall AA. Quantitative real-time PCR detection of Zika virus and evaluation with field-caught mosquitoes. *Virology*. 2013 Oct 22;10:311. doi: 10.1186/1743-422X-10-311
- *Protocol can be provided upon request
- Patel P, Landt O, Kaiser M, Faye O, Koppe T, Lass U, Sall AA, Niedrig M. Development of one-step quantitative reverse transcription PCR for the rapid detection of flaviviruses. *Virology*. 2013 Feb 14;10:58. doi: 10.1186/1743-422X-10-58.
- RealStar® Zika RT-PCR Kit 1.0 (order #591013), altona DIAGNOSTICS

Due to the high virus genome concentration of $\sim 4.2 \times 10^7$ genome equivalents per vial, we recommend to dilute the extracted RNA prior to use in PCR reactions to reduce the risk of cross-contaminations.

Orders should be placed via the European Virus Archive global following the instructions given:

<http://global.european-virus-archive.com/nucleic-acids/zika-standard-strain-mr766-inactivated>

Please excuse that our network partners obtain priority.

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