



Vector Smart™ VZDC

Zika, Dengue, Chikungunya Test kit

Innovating Molecular Diagnostic Solutions

Vector Smart™ VZDC test is a real-time PCR multiplex test intended to detect Zika virus, dengue virus (types 1, 2, 3, and 4), and chikungunya extracted ribonucleic acid (RNA) in mosquito samples.

The test kit has been tested with QIAamp® Viral RNA Mini Extraction Kit (Qiagen), MagMax™ -96 Viral RNA Isolation Kit (Thermo Fisher Scientific), and the sbeadex livestock kit (LGC) and run using the CoDx Box™ Thermal Cycler. Triton™ X-100 (Sigma-Aldrich) was used to inactivate viruses.

The Vector Smart™ VZDC test kit has shown no cross-reactivity with West Nile (WNV), St. Louis Encephalitis (SLEV), Yellow fever (YFV), Hepatitis C (HCV), Japanese encephalitis (JEV), Eastern Equine encephalitis (EEEV), Spondweni (SPOV), Western Equine encephalitis (WEEV), Jamestown Canyon (JCV), La Crosse encephalitis (LACV), and Nhumirim (NHUV) viruses through wet-test or in-silico analysis. These microorganisms can be found in mosquito Aedes and Culex guts.



Vector Smart™ VZDC

Compatible with multiple sample types

Contains a simple and streamlined work flow

Includes internal control to verify sample quality

Includes positive control

Produces results that are easy to interpret

Compatible with multiple platforms & sample extraction techniques



Product Performance Characteristics

Application	Qualitative Multiplex PCR test, detection for ZIKV, DENV and CHIKV.					
	ZIKV†	DENV T1†	DENV T2†	DENV T3†	DENV T4†	CHIKV†
Limit of Detection (copies/mL)	2.53x10 ⁴	4.74x10 ³	8.08x10 ³	2.83x10 ⁴	3.74x10 ⁴	1.06x10 ³
Sensitivity	91.70%	96.22%	98.05%	98.11%	93.62%	99.67%
Specificity	100%	100%	100%	100%	100%	100%
Sample type	Pooled mosquitoes, especially of genus Aedes, and Culex.					
Detection details	Detection and differentiation of Zika virus (ZIKV), dengue virus (DENV), and chikungunya virus (CHIKV)					
Time to detection	63-90 minutes, depending on the machine used					
Thermal cycler compability	Most qPCR systems capable of the following channel compatibilities: FAM CF560 (VIC) CF610 (ROX) Quasar670 (Cy5)					
Extraction kit compatibility	QIAamp® Viral RNA Mini Kit, MagMax™ -96 Viral RNA Isolation Kit, and sbeadex livestock kit					

† Results based on a total of 2441 contrived samples run on the CoDx Box™.

Each Vector Smart™ VZDC kit includes:

- 1x500µL (100rxns) Vector Smart™ VZDC Master Mix
- 1x500µL (100rxns) Vector Smart™ VZDC Positive Control
- 1x500µL (100rxns) Vector Smart™ VZDC Extraction Control
- 1x500µL (100rxns) Nuclease Free Water

Ordering Information:

Product Name	Product ID
Co-DX Box™ Thermal Cycler	Request Quote
Vector Smart™ VZDC kit	VZDC-K-001