

Validation report

DAS-ELISA RBDV

Article No.: 152077 (RBDV Complete kit 96) / 152075 (RBDV Complete kit 480) / 152072 (RBDV Complete kit 960)

General information:

Target Pathogen	RBDV (Raspberry bushy dwarf virus) / <i>Idaeovirus rubi</i>
Genus	<i>Idaeovirus</i>
Method	DAS-ELISA

Technical information:

Antibodies	Polyclonal and monoclonal antibodies developed against RBDV isolates from the USA and the UK.
Sampling	1:20 (w/v) in extraction buffer "General".
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized RBDV infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf Seed transmission. No known vector.
Tested species infected	<i>Chenopodium quinoa</i> (Quinoa) <i>Rubus fruticosus</i> (Blackberry) <i>Rubus idaeus</i> (Raspberry)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	53
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	>100
Detected isolates / geographic regions (Inclusivity)	RBDV 1171 (Switzerland, Quinoa) RBDV 35156 (Switzerland, Raspberry) RBDV PM09 (Switzerland, Raspberry) RBDV GA 668-680 (Switzerland, Raspberry) RBDV GA 49 (Switzerland, Raspberry) RBDV Be-253 (Switzerland, Raspberry) RBDV 409-06 (Switzerland, Blackberry) RBDV Be-319 (Switzerland, Raspberry)
Cross reaction with (Exclusivity)	None known
No cross reaction tested with (Exclusivity)	ArMV (Arabidopsis mosaic virus) CLR (Cherry leaf roll virus) LMV (Lettuce mosaic virus) PDV (Prune dwarf virus) RpRSV (Raspberry ringspot virus) SMYEPV (Strawberry mild yellow edge virus) TRSV (Tobacco ringspot virus) TSWV (Tomato spotted wilt virus) Xcp (<i>Xanthomonas campestris</i> pv. <i>pelargonii</i>)

No matrix effect observed with (Selectivity)	<i>Chenopodium quinoa</i> (Quinoa) <i>Fragaria vesca</i> (Strawberry) <i>Prunus avium</i> (Cherry) <i>Rubus fruticosus</i> (Blackberry) <i>Rubus idaeus</i> (Raspberry) <i>Vitis vinifera</i> (Grapevine)
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Sensitivity:

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	10 ⁻³ – 10 ⁻⁴ dilution of infected tissue (pathogen titer unknown).
Sensitivity on host matrix	RBDV on leaves of raspberry: 1:31'250 dilution RBDV on leaves of blackberry: 1:6'250 dilution Pathogen titer unknown
Other sensitivity characteristics	-

Validation:

Internal validation	2004 (last internal validation)
External validation	-
Reproducibility	100%
Repeatability	100%
Validation information	Internally, the reagents have been validated with the BIOREBA isolate collection composed of various samples collected within the last 40 years.

Validation release Date:
July, 12th, 2023

QC manager:



Version: 2 – 17.07.2024 - Information about sensitivity on host matrix and limit of detection (LoD) added.