Validation report

DAS-ELISA ArMV

Article No.: 120377 (ArMV Complete kit 96) / 120375 (ArMV Complete kit 480) / 120372

(ArMV Complete kit 960)

General information:

| Target Pathogen | ArMV (Arabis mosaic virus) | |
|-----------------|----------------------------|--|
| Genus | Nepovirus | |
| Method | DAS-ELISA | |

Technical information:

| Antibodies | Polyclonal antibodies developed against an ArMV isolate from grapevine |
|----------------|--|
| Sampling | Leaf samples: 1:20 (w/v) in extraction buffer "general" Grapevine leaf samples: 1:10 (w/v) in extraction buffer "Grapevine" |
| Controls | Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized ArMV infected plant extracts |
| Working volume | 200 μl / well |

Host matrix:

| Tested plant material | Leaf, sprouting buds, bark (phloem) |
|-------------------------|--|
| Tested species infected | Vitis vinifera (Grapevine) Chenopodium quinoa (Quinoa) Fragaria (Strawberry) |

Specificity:

| specificity. | |
|--|--|
| Analytical Specificity | 100% |
| Number of tested samples from target organism (True Positives) | 89 |
| Diagnostic Specificity | 100% |
| Number of tested samples non-target organism (True Negatives) | >100 |
| Detected isolates / geographic regions (Inclusivity) | 782 (Switzerland, Quinoa) 920 (Switzerland, Quinoa) H138 Chardonnay (France, Grapevine) T62 Chardonnay Lornet (France, Grapevine) J86 Riesling (France, Grapevine) L3 Riesling (France, Grapevine) N152 Tannat (France, Grapevine) P119 Zirock (France, Grapevine) P120 Zirock (France, Grapevine) D7 Chardonnay (France, Grapevine) H133 Chardonnay (France, Grapevine) B813 Chardonnay (France, Grapevine) N37 Cabernet Franc (France, Grapevine) L5 Riesling (France, Grapevine) T68 Chardonnay Lornet (France, Grapevine) D8 Chardonnay (France, Grapevine) C1200 Chardonnay (France, Grapevine) P116 Zirock (France, Grapevine) |

BIOREBA AG

Your Partner in Agro-Diagnostics

Christoph Merian-Ring 7 CH-4153 Reinach BL1 Switzerland

phone +41 61 712 11 25 fax +41 61 712 11 17 admin@bioreba.ch www.bioreba.com







| | Mys TM (France, Grapevine) |
|--|--|
| | T66 Chardonnay Lornet (France, Grapevine) Humagne rouge 8848-9 (Switzerland, Grapevine) |
| | Ugni blanc 8085/86 (Switzerland, Grapevine) |
| | Sylvaner 11229/30 (Germany, Grapevine) 8819 (Switzerland, Grapevine) |
| | 8822 (Switzerland, Grapevine) |
| | Morio-Muskat 7/6/4 (Germany, Grapevine) |
| | Morio-Muskat 7/6/2 (Germany, Grapevine) |
| Cross reaction with (Exclusivity) | None known |
| Cross reaction with (Exclusivity) | |
| No cross reaction tested with (Exclusivity) | CaMV (Cauliflower mosaic virus) GFkV (Grapevine fleck virus) GFLV (Grapevine fanleaf virus) GLRaV-1 (Grapevine leafroll-associated virus 1) GLRaV-3 (Grapevine leafroll-associated virus 3) GPGV (Grapevine pinot gris virus) PVA (Potato virus A) PVX (Potato virus X) Xcp (Xanthomonas campestris pv. perlargonii) |
| No matrix effect observed with (Selectivity) | Vitis vinifera (Grapevine) Chenopodium quinoa (Quinoa) Cannabis sativa (Hemp) Pelargonium (Geranium) Prunus persica (Peach) Fragaria (Strawberry) |

Sensitivity:

| Sensitivity. | |
|-----------------------------------|---|
| Diagnostic sensitivity | 100% |
| Analytical Sensitivity / LoD | 10 ⁻³ dilution of infected tissue (pathogen titer unknown) |
| Sensitivity on host matrix | ArMV on leaves of grapevine: 1:1'250 dilution ArMV on canes of grapevine: 1:1'250 dilution Pathogen titer unknown |
| Other sensitivity characteristics | - |

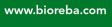
Validation:

| validation. | |
|------------------------|--|
| Internal validation | 2009 |
| External validation | PT every 2 years (Germany) |
| Reproducibility | 100% |
| Repeatability | 100% |
| Validation information | Every two years BIOREBA participates with ArMV reagents on an external proficiency test (PT). Internally, the reagents have been validated with the BIOREBA isolate collection. |

Validation release Date: September, 07th, 2022

QC manager:

Version: 3 – 30.06.2023 – Information about sensitivity on host matrix and limit of detection (LoD) added.



Christoph Merian-Ring 7 CH-4153 Reinach BL1

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