Rev 2022-05

K-0201 ArMV + GFLV ELISA KIT

INSTRUCTIONS FOR USE

Introduction

The intended purpose of this diagnostic kit is the simultaneous detection in grapevine tissue of *Arabis mosaic virus* (ArMV) and *Grapevine fanleaf virus* (GFLV). This kit has been conceived to be primarily employed in the certification programs for fanleaf complex disease control.

Principle of the assay

The method of detection is an Enzyme-linked Immunosorbent Assay (ELISA) based on Double Antibody Sandwich (DAS) by polyclonal antibodies. Signal develops by alkaline phosphatase reaction with p-nitro phenyl phosphate.

Specificity

Assay specificity refers to the following bibliography:

- Harrison, B.D. and Nixon, H.L. (1960). Virology 12 : 104.
- Murant, A. F. (1970). CMI/AAB Descr. Pl. Viruses No 16, 4 pp.
- Murant A.F.,.A.T. Jones, G. P. Martelli, and R. Stace-Smith. 1996. Nepoviruses : General properties, diseases and virus identifications, p.99-137. In B.D. Harrison and A. F. Murant (ed.), Plant Viruses, Vol 5. Plenum press, London and New York.
- Quacquarelli A., D. Gallitelli , V. Savino and G.P. Martelli, 1976. Properties of grapevine fanleaf virus. Journal of General Virology 32, 349-360.

Assay quality control

The positive and the negative controls provided with the kit can be used as references (i) to verify that the assay was carried out correctly, (ii) to check the activity of reagents as prepared for the assay, and (iii) to set the test threshold.

- 1 Positive control vial contains grapevine phloem tissue tested for ArMV. The presence of the virus was ascertained by ELISA, indexing, and PCR.
- 1 Positive control vial contains grapevine phloem tissue tested for GFLV. The presence of the virus was ascertained by ELISA, indexing, and PCR.
- 1 Negative control vial contains grapevine phloem tissue tested for ArMV and GFLV. The absence of the viruses was ascertained as above.

Reconstitute freeze dried controls by adding distilled water, as stated in the label. When available, use your fresh positive control too. Process each reconstituted control as the samples.

Antigen extraction

This kit is calibrated for testing grapevine phloem and leaf tissue. Antigen extraction is achieved by Tris-HCl buffer, pH 8.2.

Testing time

The shortest time to carry out the assay is 6 hours. Reading of results is made 1-2 hour after adding the substrate.

Storage of kit components

All kit components must be used before the expiration date stated on the vial label and stored at 4°C. The reagents are preserved by glycerol.

Reconstituted controls can be stored at -20°C and used no more than 2-3 times. In this case, a slight decrease of the signal should be expected.

Components provided with the kit

- ☐ Manual (instructions and protocol)
- ☐ Packing list
- ☐ Quality control certificate of the kit manufacture lot

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