

**Pathogen :**

GLRaV-2 Grapevine Leaf Roll associated Virus -2

Test format :

TAS-ELISA (alkaline phosphatase)

Catalogue Number :

PSS10002

REAGENT

	Coating-Ab	Probe-Ab	AP - anti-species conjugate-Ab
Batch	80208	80209	91104
Type	Rabbit Polyclonal	Mouse Monoclonal	Goat
Dilution	1/100	1/100	1/100
Format	PBS / Glycerol 50%	PBS / Glycerol 50%	PBS / Glycerol 50%
Storage temperature	-20°C	-20°C	-20°C
Use by			

Number of tests	500
Volume per bottle of Coating-Ab*	500 µL
Volume per bottle of Probe-Ab*	500 µL
Volume per bottle of Conjugate-Ab*	500 µL

*Volume based on a test performed with 100 µl per well. 1 test = 1 well

QUALITY CONTROL

Value of ELISA responses (OD 405 nm)*	Positive Control	Negative Control
	3.011	0.020

* ELISA responses were measured after 60 min. incubation of substrate (pNPP) at +37°C.



CHARACTERISTICS OF THE DISEASE

Grapevine Leaf Roll associated Virus-2 (**GLRaV-2**) is one of the closterovirus inducing grapevine leafroll disease.

Grapevine LeafRoll is one the most important diseases of grapevines and occurs world- wide. Leafroll is an extremely widespread disease that induces typical and often intense symptoms in *Vitis vinifera*; but is latent in almost all American *Vitis* species and their hybrids, except for a decrease in vigour.

In European grapes, disease symptoms consist in the downward rolling of the leaf blades, accompanied by reddish or yellowish discolouration of the interveinal tissues in red-berried and white-berried varieties, respectively.

Closteroviruses are the major agents of leafroll disease. Nine serologically distinct viruses have been identified so far in leafroll-affected grapevines. Although all of these viruses continue to be called Grapevine Leafroll associated Virus, GLRaVs, there is experimental evidence that some of them (GLRaV-1, -2 and -3) induce leafroll-type responses in vines infected by grafting or vectors. This led to the suggestion that the word "associated" be dropped from the name of the first three GLRaVs of the series. All these closteroviruses possess particles with a length ranging from 1,400 to 2,200 nm. All grapevine closteroviruses are spread primarily by propagation material but two of them (GLRaV-3 and probably GLRaV-2) are transmitted by pseudococcid mealybugs and scale insects. The vectors of GLRaV-3 are *Planococcus ficus*, *Pseudococcus longispinus*, *Ps. Affinis*, *Ps. calceolariae* and *Pulvinaria vitis*; whereas the vectors of GLRaV-2 have been suggested to be *Ps. Longispinus* and *Ps. Affinis*.

The serological diagnostic tests can be realised using old leaves or on woody stick all the year.

MORE INFORMATION

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Zimmermann D. et al., 1990a. Characterization and serological detection of four closterovirus particles associated with leafroll disease on grapevine., *J. Phytopath.*, 130, 205-218.



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