# Test Principle & Intended Use

This product is intended for the qualitative detection of the target analyte via a direct, double antibody sandwich protocol known as DAS-ELISA. Upon successful completion of the test, samples containing the target analyte will turn yellow while negatives will remain colorless.

## **Handling Information**

Antibodies and plates should be stored refrigerated (2 - 8 °C) between uses. All test materials should be warmed to room temperature (18 - 30 °C) before use. For materials provided please see the product webpage. Do not store 1X buffers for more than one day.

# Safety

All components are non-hazardous except 5X PNP Buffer. Refer to component SDS for more information: <u>http://docs.agdia.com/DataSheets.aspx</u>



### Test Preparation

- 1. Record lot numbers of materials to be used in the test. Copy or print logsheet from the product webpage.
- 2. Prepare a humid box by lining an airtight container with a wet paper towel.
- 3. Mix both concentrated and diluted antibodies thoroughly before each use.



### Sample Preparation

- 1. Sample symptomatic tissue if possible. Other plant parts may be tested, including asymptomatic tissue.
- 2. At the time of testing, grind and dilute the samples at a 1:10 ratio with General Extraction Buffer (GEB). *Example: 0.3 g plant tissue, extracted with 3 mL of GEB.*



# Positive and Negative Control Preparation

- 1. Use GEB to hydrate controls, according to label, at least five minutes before use.
- 2. Recap and mix thoroughly.



#### **Test Procedure**

- 1. Dispense 100 µL of the extracted samples, positive control, negative control, and extraction buffer into the plate following your logsheet.
- 2. Incubate plate in the humid box for either 2 hours at room temperature or overnight at 2 8 °C.



# Prepare Enzyme Conjugate

- 1. Prepare the enzyme conjugate (ECA) in a non-binding container, such as Agdia's sample cups (ACC 00960).
- 2. Dilute the thoroughly-mixed ECA, per the dilution on the label, in 1X ECI buffer (see example). You will need 100  $\mu$ L of diluted ECA per well; a full plate will need 10 mL.

Example: (Wells Used  $\underline{16} \times 100 \ \mu$ L)  $\div \underline{200}^{\dagger} = \underline{8} \ \mu$ L Enzyme Conjugate <sup>†</sup>Bottle dilution will be either 100 or 200

- 3. Wash the sample from the plate 8 times using 1X PBST.
- 4. Tap plate dry using lint-free paper towel.
- 5. Thoroughly mix and pipette 100 µL of diluted ECA into each testwell.
- 6. Incubate plate in the humid box for 2 hours at room temperature.



Agdia, Inc. 52642 County Road 1 Elkhart, IN 46514 574-264-2014 / 800-622-4342 www.agdia.com / info@agdia.com

m14.7 Revised: 05/01/2019 Page 1 of 2



### **Prepare Substrate**

- 1. Add 1 PNP substrate tablet per 5 mL of 1X PNP substrate buffer into a dedicated container. You will need 100 μL of diluted PNP solution per well; a full plate will need 10 mL. Ensure tablets are dissolved before use. Keep prepared PNP solution in the dark prior to use.
- 2. Wash the ECA from the plate 8 times using 1X PBST.
- 3. Tap plate dry using lint-free paper towel.
- 4. Pipette 100 µL of dissolved PNP solution into each testwell.
- 5. Incubate, protected from light, for 1 hour at room temperature.



#### **Evaluate Results**

- 1. Examine wells by eye or measure with a spectrophotometer at 405 nm. Remove bubbles, if present, prior to reading.
- 2. Wells that develop color indicate positive results.
- 3. Wells in which there is no significant color development indicate negative results.
- 4. The test is valid only if known positive control turns yellow and known negative control remains colorless.

### Warranty

Agdia reagents are warrantied for performance issues that arise from manufacturer defect. See product packaging for relevant expiration dates. Agdia's return policy can be found at <a href="http://www.agdia.com/customer-support/return-policy">www.agdia.com/customer-support/return-policy</a>.

### **Additional Information**

If you would like more information on how to run ELISA, please see Agdia's FAQ section, <u>http://www.agdia.com/customer-support/</u><u>frequent-questions-and-troubleshooting</u>. For further documentation including this user guide, buffer formulations, and a logsheet, please see Agdia's specific product webpages. If you have problems with your ELISA or have technical questions, please contact <u>techsupport@agdia.com</u>.

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