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BIOREBA

Validation report

DAS-ELISA Aac

Article No.: 161977 (Aac Complete kit 96) / 161975 (Aac Complete kit 480) / 161972 (Aac Complete kit 960)

General information:

Target Pathogen	Aac (*Acidovorax avenae* subsp. *citrulli*)
Genus	*Acidovorax*
Method	DAS-ELISA
Associated diseases	Bacterial fruit blotch

Technical information:

Antibodies	Polyclonal antibodies developed against different Aac isolates originating from US, Brazil and Thailand.
Sampling	Leaf samples: 1:20 (w/v) in extraction buffer "General".
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized Aac infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf, seeds, bacterial cultures Seed transmittable
Tested species infected	*Cucurbita pepo* subsp. *pepo* convar. *Giromontiina* (Zucchini) *Cucurbita maxima* (Squash)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	34
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	>100
Detected isolates / geographic regions (Inclusivity)	Aac 200/21 (US, Squash) Aac 010903 (US) Aac 020910 (Switzerland) Aac 010713 (Switzerland) Aac 260813 (Switzerland Aac TS-005-22 (Switzerland, Squash) Aac TS-005-22 (Switzerland, Zucchini)
Cross reaction with (Exclusivity)	Aaa (*Acidovorax avenae* subsp. *avenae*) Aacat (*Acidovorax avenae* subsp. *cattleyae*)
No cross reaction tested with (Exclusivity)	CGMMV (Cucumber green mottle mosaic virus) CMV (Cucumber mosaic virus) TMV (Tobacco mosaic virus) WMV-2 (Watermelon mosaic virus 2) ZYMV (Zucchini yellow mosaic virus)
No matrix effect observed with (Selectivity)	*Citrullus lanatus* (Watermelon) *Cucumis sativus* (Cucumber)

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	Cucurbita pepo subsp. *pepo* convar. *Giromontiina* (Zucchini) *Cucurbita maxima* (Squash) *Lactuca sativa* (Lettuce)

Sensitivity:

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	10^4 CFU per ml (pure bacteria culture diluted in ELISA extraction buffer) 10^{-4} dilution of infected tissue (pathogen titer unknown).
Sensitivity on host matrix	-
Other sensitivity characteristics	-

Validation:

Internal validation	2003
External validation	-
Reproducibility	100%
Repeatability	100%
Validation information	Internally, the reagents have been validated with the BIOREBA isolate collection, composed of various samples with diverse plant host range, collected within the last 25 years.

Validation release Date:
October 15th, 2026

QC manager:



Version: 1 – 15.10.2026.

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