

Validation report

DAS-ELISA Aacat

Article No.: 170677 (Aacat Complete kit 96) / 170675 (Aacat Complete kit 480) / 170672 (Aacat Complete kit 960)

General information:

Target Pathogen	Aacat (<i>Acidovorax avenae</i> subsp. <i>cattleyae</i>)
Genus	<i>Acidovorax</i>
Method	DAS-ELISA
Associated diseases	Bacterial brown spot of orchid

Technical information:

Antibodies	Polyclonal antibodies developed against Aacat isolate B108 in <i>Phalaenopsis</i> .
Sampling	Leaf samples: 1:20 (w/v) in extraction buffer "General".
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized Aacat infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf, bacterial cultures
Tested species infected	<i>Phalaenopsis</i> (Orchid)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	13
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	24
Detected isolates / geographic regions (Inclusivity)	Aacat B107 (Germany) Aacat B108 (Germany) Aacat B109 (Germany) Aacat 020910 (Switzerland) Aacat 010713 (Switzerland) Aacat 220813 (Switzerland) Aacat 260813 (Switzerland)
Cross reaction with (Exclusivity)	Aaa (<i>Acidovorax avenae</i> subsp. <i>avenae</i>) Aac (<i>Acidovorax avenae</i> subsp. <i>citrulli</i>)
No cross reaction tested with (Exclusivity)	OYDV (Onion yellow dwarf virus)
No matrix effect observed with (Selectivity)	<i>Allium cepa</i> (Onion) <i>Allium sativum</i> (Garlic) <i>Phalaenopsis</i> (Orchid)

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	2004
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:
August 27th, 2026

QC manager:



Version: 1 – 27.08.2026.