

Validation report

DAS-ELISA TBSV

Article No.: 161877 (TBSV Complete kit 96) / 161875 (TBSV Complete kit 480) / 161872 (TBSV Complete kit 960)

General information:

Target Pathogen	TBSV (Tomato bushy stunt virus / Tombusvirus lycopersici)
Genus	<i>Tombusvirus</i>
Method	DAS-ELISA

Technical information:

Antibodies	Polyclonal antibodies developed against TBSV isolate Bs3.
Sampling	Leaf samples: 1:20 (w/v) in extraction buffer "general".
Controls	Negative control (NC): lyophilized extracts from healthy plants Positive control (PC): lyophilized TBSV infected plant extracts
Working volume	200 µl / well

Host matrix:

Tested plant material	Leaf Seed and pollen transmission is possible. Transmission by mechanical inoculation and grafting.
Tested species infected	<i>Chenopodium quinoa</i> (Quinoa) <i>Nicotiana Benthamiana</i> (Tobacco) <i>Nicotiana Glutinosa</i> (Tobacco) <i>Petunia x hybrida</i> (Petunia) <i>Solanum lycopersicum</i> (Tomato)

Specificity:

Analytical Specificity	100%
Number of tested samples from target organism (True Positives)	33
Diagnostic Specificity	100%
Number of tested samples non-target organism (True Negatives)	25
Detected isolates / geographic regions (Inclusivity)	TBSV 1226 (Switzerland, Quinoa) TBSV 1226 (Switzerland, Tobacco) TBSV 1226 (Switzerland, Petunia) TBSV 1226 (Switzerland, Tomato) TBSV BS3 (Italy, Tobacco) TBSV BS3 (Italy, Petunia) TBSV BS3 (Italy, Quinoa)
Cross reaction with (Exclusivity)	None known
No cross reaction tested with (Exclusivity)	CaMV (Cauliflower mosaic virus) INSV (Impatiens necrotic spot virus) PLRV (Potato leafroll virus) PVA (Potato virus A) PVS (Potato virus S) PVY (Potato virus Y) SMYEPV (Strawberry mild yellow edge virus)

No matrix effect observed with (Selectivity)	<i>Cannabis sativa</i> L. (Hemp) <i>Capsicum annuum</i> (Pepper) <i>Petunia x hybrida</i> (Petunia) <i>Solanum lycopersicum</i> (Tomato)
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Sensitivity:

Diagnostic Sensitivity	100%
Analytical Sensitivity / LoD	10 ⁻³ dilution of infected tissue (pathogen titer unknown).
Sensitivity on host matrix	TBSV on leaves of tomato: 1:1'250 dilution Pathogen titer unknown
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 40 years.

Validation release Date:
May 27th, 2026

QC manager:



Version: 1 – 27.05.2026.