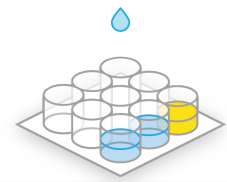


Validation Report: ELISA

SRA 44001 • *Clavibacter michiganensis* subsp. *michiganensis* (Cmm)



Test Characteristics

Test Name	Clavibacter michiganensis subsp. michiganensis	Capture Antibody	Polyclonal (Rabbit)
Catalog Number	44001	Detection Antibody	Polyclonal (Rabbit)
Acronym	Cmm	Format	DAS-ELISA
Genus	Clavibacter	Diluents	GEB/ECM
		Sample Dilution	1:10

Summary

This ELISA test is a qualitative serological assay for the detection of *Clavibacter michiganensis* subsp. *michiganensis* (Cmm), the causal agent of bacterial canker, in tomato leaves. Cmm is a member of the *Clavibacter* genus known for their aerobic, non-motile, Gram-positive, non-spore-forming, curved rod shaped bacteria.

Diagnostic Sensitivity

True Positives	31
Correct Diagnoses	31
Percent	100%

Analytical Sensitivity

Limit of Detection: 4.0×10^4 CFU/mL

Analytical Specificity

Inclusivity:

This assay was designed to detect all strains and isolates of Cmm. Thirty-one distinct samples of Cmm have been experimentally proven to be detected including samples of isolate 557B0-1.

Exclusivity:

Cross-reacts With:

Clavibacter michiganensis subsp. insidiosus (Cmi) ¹	Clavibacter michiganensis subsp. nebraskensis (Cmn)
Clavibacter michiganensis subsp. sepedonicus (Cms) (mucoid)	Clavibacter michiganensis pv. tessellarius (Cmt)
¹ Cross-reaction observed in 2 out of 3 samples.	

Does Not Cross-react With:

Acidovorax avenae pv. citrulli (Aac)	Burkholderia glumae (Bg)
Clavibacter flaccumfaciens subsp. poinsettiae	Clavibacter poinsettiae
Erwinia amylovora (Ea)	Erwinia herbicola
Erwinia tracheiphila	Dickeya chrysanthemi (Dickeya)
Pantoea stewartii (Pstew)	Pectobacterium atrosepticum (Patro)
Pectobacterium carotovorum subsp. carotovorum	Pseudomonas avenae
Pseudomonas fuscovaginae	Pseudomonas savastanoi pv. glycinea
Pseudomonas savastanoi pv. phaseolicola (Psph)	Pseudomonas syringae pv. tomato (Pst)



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p171.1
Revised: 10/04/2022
Page 1 of 2

Does Not Cross-react With:

Ralstonia solanacearum (Rs)	Xanthomonas albilineans (Xalb)
Xanthomonas axonopodis pv. citri (Xac)	Xanthomonas campestris pv. armoraciae (Xcarm)
Xanthomonas campestris pv. begoniae	Xanthomonas campestris pv. campestris
Xanthomonas campestris pv. dieffenbachiae	Xanthomonas campestris pv. pelargonii
Xanthomonas campestris pv. phaseoli	Xanthomonas campestris pv. translucens
Xanthomonas campestris pv. zinneae	Xanthomonas campestris pv. vesicatoria
Xanthomonas maltophilia	Xanthomonas oryzae pv. oryzae (Xoo)

Diagnostic Specificity

True Negatives 70
Correct Diagnoses 70
Percent 100%

Selectivity:**No Matrix Effect Observed With:**

Aloe leaves	Artichoke leaves	Asparagus leaves	Banana leaves
Bean leaves	Beet root	Blueberry leaves	Brussels sprout leaves
Cabbage leaves	Canola leaves	Carnation leaves	Chenopodium quinoa leaves
Corn leaves	Cotton leaves	Cucumber leaves	Cymbidium leaves
Dianthus leaves	Eggplant leaves	Garlic leaves	Geranium leaves
Grape leaves	Hosta leaves	Hydrangea leaves	Impatiens leaves
Kalanchoe leaves	Kohl rabi leaves	Lettuce seed	Lily leaves
Nandina leaves	Onion leaves	Papaya leaves	Peach leaves
Pepper leaves	Petunia leaves	Potato leaves	Potato sprouts
Potato tubers	Rose leaves	Rubber tree leaves	Strawberry leaves
Strawflower leaves	Tobacco leaves	Tomato leaves	



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