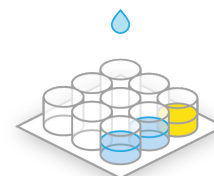


Validation Report: ELISA

PSA/SRA 41000 • *Rhizoctonia solani* (Rhiz)



Test Characteristics

Test Name	Rhizoctonia solani	Capture Antibody	Polyclonal (Rabbit)
Catalog Number	41000	Detection Antibody	Polyclonal (Rabbit)
Acronym	Rhiz	Format	DAS-ELISA
Genus	Rhizoctonia	Diluents	GEB/RUB6
		Sample Dilution	1:10

Summary

Rhizoctonia solani is a ubiquitous, soilborne fungal pathogen and an important limiting factor to global food production. This aggressive necrotroph exists as a species complex and causes serious disease on a diverse range of hosts, including row crops, ornamentals, vegetables, turfgrass and several species of woody plants. This ELISA test is a qualitative serological assay for the detection of *Rhizoctonia solani* (Rhiz).

Diagnostic Sensitivity

True Positives	61
Correct Diagnoses	61
Percent	100%

Analytical Specificity

Analytical Sensitivity

Inclusivity:

Isolates and Geographic Regions Detected and Analytical Sensitivity:

Rhizoctonia solani-11654 (Germany) (DSM 63002)	1:270 dilution of culture surface collection (pathogen titer unknown)
Rhizoctonia solani-12197 (Japan) (DSM 62716)	1:30 dilution of culture surface collection (pathogen titer unknown)
Rhizoctonia solani-2781-248F (AG-1) (DSM 843)	1:2,430 dilution of culture surface collection (pathogen titer unknown)
Rhizoctonia solani-CBS 130.14 (AL, USA) (AG-4) (DSM 852)	1:810 dilution of culture surface collection (pathogen titer unknown)
Rhizoctonia solani-CBS 298.37 (AG-6) (DSM 903)	1:1,024 dilution of culture surface collection (pathogen titer unknown)
Rhizoctonia solani-R96 (Finland) (AG-5) (DSM 22880)	1:640 dilution of culture surface collection (pathogen titer unknown)
Rhizoctonia solani-R98 (Finland) (AG-3) (DSM 22847)	1:7,290 dilution of culture surface collection (pathogen titer unknown)
Rhizoctonia solani-R114 (Finland) (AG-2-1) (DSM 22843)	1:2,430 dilution of culture surface collection (pathogen titer unknown)

Exclusivity:

Cross-reacts With:

None known	
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Does Not Cross-react With:

Fusarium brachygibbosum	Fusarium graminearum
Fusarium oxysporum f. sp. cannabis	Fusarium proliferatum
Fusarium solani	Phytophthora citrophthora



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

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Does Not Cross-react With:

Phytophthora foliorum	Phytophthora hibernalis
Phytophthora lateralis	Phytophthora pseudosyringae
Phytophthora ramorum	Phytophthora sansomeana
Phytophthora obscura	Pythium alphanidermatum
Pythium irregulare	Pythium ultimum
Thielaviopsis basicola	

Diagnostic Specificity

True Negatives 221
Correct Diagnoses 221
Percent 100%

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

Antirrhinum leaves	Antirrhinum roots	Antirrhinum stems	Cabbage leaves
Cabbage roots	Cabbage seeds	Cabbage stems	Callibrachoa leaves
Callibrachoa roots	Callibrachoa stems	Carrot leaves	Carrot roots
Carrot seeds	Carrot stems	Chrysanthemum leaves	Chrysanthemum roots
Chrysanthemum stems	Corn leaves	Corn roots	Corn seeds
Corn stems	Cotton leaves	Cotton roots	Cotton seeds
Cotton stems	Cowpea roots	Cowpea stems	Cucumber leaves
Cucumber roots	Cucumber seeds	Cucumber stems	Gerbera leaves
Gerbera roots	Gerbera seeds	Gerbera stems	Impatiens leaves
Impatiens roots	Impatiens stems	Lettuce leaves	Lettuce roots
Lettuce seeds	Lettuce stems	Pepper leaves	Pepper roots
Pepper seeds	Pepper stems	Petunia leaves	Petunia roots
Petunia seeds	Petunia stems	Poinsettia leaves	Poinsettia roots
Poinsettia seeds	Poinsettia stems	Potato leaves	Potato roots
Potato seeds	Potato stems	Rice leaves	Rice roots
Rice seeds	Rice stems	Soybean leaves	Soybean roots
Soybean seeds	Soybean stems	Spinach leaves	Spinach roots
Spinach seeds	Spinach stems	Squash leaves	Squash roots
Squash seeds	Squash stems	Strawberry leaves	Strawberry roots
Strawberry stems	Sugarbeet leaves	Sugarbeet roots	Sugarbeet seeds
Sugarbeet stems	Tomato leaves	Tomato roots	Tomato seeds
Tomato stems	Tulip leaves	Tulip roots	Tulip stems
Turf spp leaves	Turf spp roots	Turf spp seeds	Turf spp stems
Wheat leaves	Wheat roots	Wheat seeds	Wheat stems



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Repeatability

Number of Samples 64
Replicates per Sample 6
Average Percent Agreement 99.2%
Between Replicates

Reproducibility

Number of Samples 64
Replicates per Sample 6
Number of Operators 3
Average Percent Agreement Between 99.0%
Replicates Between Operators



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