

InvictDetect™ ImmunoStrip®

Detection Kit for *Solenopsis invicta*

Product Number: 49700



KIT INFORMATION

Intended Use

This test is intended to identify the red imported fire ant, *Solenopsis invicta*, by detection of the Soli2 protein. The test is appropriate for testing a pooled sample containing 5 worker ants. This protocol is not intended for individual ant testing.

Storage of Kit

Kit contents should be stored at room temperature (18 - 30 °C). ImmunoStrips should be tightly sealed in the desiccated container at all times.

ImmunoStrip Kit (ISK) Includes:

- ImmunoStrips (10)
- AEB2 Buffer (3 mL)
- 100 µL exact volume pipette (10)
- Plastic pestle (10)
- 1.5 mL microcentrifuge tube (10)
- User guide

Required But Not Included:

- Timer
- Tools for ant collection

SAFETY PRECAUTIONS

ImmunoStrips and AEB2 buffer are non-hazardous.

***** WARNING ***** While collecting ants for testing, handle with caution. Red imported fire ant (*Solenopsis invicta*) stings can cause local and systemic allergic reactions.

PREPARING THE SAMPLE

Ants must be homogenized in AEB2 buffer. For best results, each ant sample must contain 5 ants.

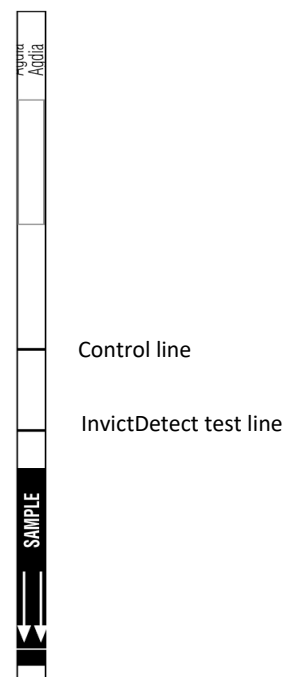
1. Fully press the top bulb of the 100 µL exact volume pipette, insert the tip of the pipette in the AEB2 buffer, release the top bulb, and transfer the AEB2 buffer to the 1.5 mL sample tube.
2. Collect five worker ants and place them in the 1.5 mL sample tube filled with 100 µL AEB2 buffer. Chilling the ants by placing them on ice or into a freezer briefly may facilitate their transfer.
3. Push the ants into the bottom of the tube with a plastic pestle and macerate the ants thoroughly with the plastic pestle until all ants have been homogenized (about 30 to 45 seconds).

PERFORMING THE ASSAY

When handling strips, always grasp the top of the strip marked with the test name. Do not remove the protective covering.

1. Remove an InvictDetect ImmunoStrip from the container. Keeping ImmunoStrip in a vertical position, insert the end marked "sample" into the sample extract in the microtube
2. For most positive samples, the test line should develop in 2 to 10 minutes. However, permit the strip to react for 30 minutes to allow weak positive samples to develop properly.
3. Remove the ImmunoStrip and interpret results.
4. The **control line** assures that the test is working properly. If the **control line** does not appear, the test is invalid and should be repeated.
5. If the sample is positive, the **test line** will appear.
6. If the sample is **negative**, no test line will appear.

Note: If you wish to keep the ImmunoStrip as a permanent record, cut off the sample pad (colored end marked "sample") and discard. This prevents any liquid still in the sample pad from interfering with results. Then blot the ImmunoStrip between paper towels.



TEST REPORT

	Sample Name	Testing Result (+) or (-)	Comments
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

TROUBLESHOOTING

Control line did not develop.	This situation is generally caused by over-submergence of the test strip in the sample extract. Results in this situation should be considered invalid and the test should be repeated.
Test runs very slow or not at all.	This can be caused by using too much sample for extraction. Repeat the test. If the above is not the case, make sure the test components were warmed to temperature before use and are within their expiration date.
Test and / or control line is weak.	The test line may be weak due to a low level of <i>S. invicta</i> venom in the sample. Make sure the test is within its expiration date. If kit contents were left open too long, the strips could have absorbed moisture, which can affect test results. Be sure to always keep the ImmunoStrip vial tightly sealed between uses.

QUESTIONS OR TECHNICAL SUPPORT:

Phone: 800-622-4342 (toll-free) or 574-264-2014

Fax: 574-264-2153

E-mail: techsupport@agdia.com

Web: www.agdia.com

Reference: Steven M. Valles, Charles A. Strong & Anne-Marie A. Callcott. Development of a lateral flow immunoassay for rapid field detection of the red imported fire ant, *Solenopsis invicta* (Hymenoptera: Formicidae). *Anal Bioanal Chem* (2016) 408:4693–4703.