



DON-V

INSTRUCTION GUIDE



VICAM[®]

A Waters Business

CULTIVATING SUCCESS THROUGH SCIENCE™

For more than 20 years, VICAM has been the global provider of choice for next-generation food safety technology and rapid mycotoxin test solutions.

The goal of securing the world's food supply requires knowledge, cooperation, and collaboration. To advance that objective, VICAM works closely with government regulatory agencies, international standards bodies, major food industry laboratories, and leading research institutions around the world. With a global scientific and distribution presence, VICAM has access to the latest research advances, industry expertise, and regulatory information needed to design solutions that maximize food safety and quality at every stage of the global food supply chain.

As the trusted partner of the agricultural industry, VICAM is proud to consistently deliver the superior products, responsive service, and individualized support for your industry-specific goals.





DON-V Kit (25 tests) 176002072

DON-V KIT CONTENTS

DON-V Strip Tests 100000246
DON-V Diluent, 6 mL 100000248
Micro-Pipette Tips, 100 µL 600001109
Strip Test Vials, 1.5 mL 600000813
Filter Paper 600001106
Extraction Tubes, 40 mL 600000827
DON-V Barcode Set 715002690

**DON-V Kit-T (25 tests
for incubator method) 176003196**

Includes items above with the exception
of DON-V Diluent-T, 6 mL 100000300

Vertu Mycotoxin BEQ, 110V 176002078

Vertu Mycotoxin BEQ, 220V 176002079

BASIC EQUIPMENT CONTENTS

Vertu Reader, 110V & 220V 725000574
Vertu Bar-Code Reader 725000576
Printer, 110V & 220V 725000577
Vortex Mixer 23040
Digital Timer G4036
Micro-Pipettor, 100 µL 600001108
Filter Funnel, 65 mm, (4 pack) 36020
Strip Test Vial Rack 600001107
Graduated Cylinder, 25 mL 600000937
Vertu Basic Instruction Guide 715002426

Additional equipment for incubator method only

Complete Mini Incubator, 110V 176003201


Complete Mini Incubator, 220V 176003202

PRECISE...QUANTITATIVE...FAST

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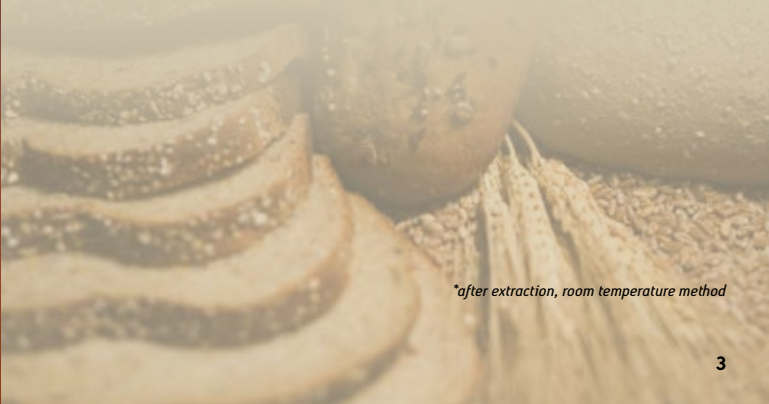




VICAM's DON-V® strip tests answer one of today's toughest food safety challenges with a new user-friendly lateral flow DON test that delivers accurate quantitative results in a matter of minutes.

DON is a toxic byproduct of several Fusarium mold species that commonly infect wheat, corn, barley, and other grains. Nicknamed vomitoxin for its severe effects on the gastrointestinal system, DON may also cause reduced feed intake, poor weight gain, and immunosuppression in susceptible livestock species, even at low concentrations (1 to 3 ppm). Concerns about acute DON toxicity, as well as the risks of chronic exposure, in animals and humans continue to fuel surveillance of grain crops worldwide.

DON-V strip tests combine the proven sensitivity and selectivity of VICAM's monoclonal antibodies to accurately detect and measure total DON in grain at levels as low as 0.2 ppm and as high as 10 ppm. The user-friendly sample preparation procedure saves time and materials, and the test takes 3 minutes* to develop. Digital readings are clearly displayed on the screen of the Vertu® Reader, eliminating any guesswork about the results.



**after extraction, room temperature method*

SAMPLE EXTRACTION

1. Scan the room temperature test kit barcode for the lot of strips that you are testing.
2. Weigh 5 g of ground sample* into an extraction tube.
3. Measure 20 mL of distilled water with a graduated cylinder and pour the water into the extraction tube.
4. Cover the extraction tube and vortex the mixture for 2 minutes at max speed.
5. Filter the extract into a clean extraction tube.
6. Transfer 100 μ L of the filtered extract to a strip test vial, add 1 mL purified water and mix well.
7. Transfer 100 μ L of the DON-V diluent to another strip test vial.
8. Using the same pipette tip add 100 μ L of the diluted sample extract from step 6 to the vial from step 7. Cover vial and mix well by vortexing.
9. Transfer 100 μ L of solution from strip test vial to the circular opening on the DON-V strip at a rate of about 1 drop per second. Be sure to hold the pipette straight up and down.
10. Allow the strip test to develop for 3 minutes on a flat surface.
11. Insert the DON-V strip test into the Vertu reader (circular opening side in first).
12. Press the center key on the reader to take a reading.
13. To print the result, move the cursor to “P” in the upper left hand corner of the display using the arrow keys, then press the center key.
14. To run the next sample, move the cursor to “NT” using the arrow keys and press the center key. If you are using the same lot of strips, you are now ready to insert the next sample. If you are using a different lot of strips, you will need to scan in the new bar code.

**wheat, barley and corn can be used*

RESULTS OUT OF RANGE

15. If the sample reads “>Range” transfer 100 µL of diluted sample extract from step 6 into a new strip test vial.
16. Add 100 µL of water to the same strip test vial.
17. Transfer 200 µL of the DON-V diluent into the strip test vial, mix well (400 µL total). Repeat steps 9 through 14.
18. Multiply the results by two.
19. If the reader displays “>Range” after dilution, the sample is greater than 10 ppm.

Strip tests must be refrigerated. Store at 4 ° – 8 °C (39 ° – 46 °F).

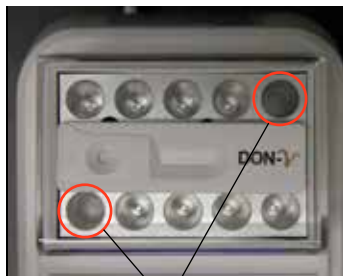
Strip test and sample extract should be at room temperature of between 20 °C (68 °F) and 25 °C (77 °F) before use. If room temperature is lower than 20 °C (68 °F) or higher than 25 °C (77 °F), use DON-V incubator method.

Use in accordance with VICAM’s testing procedure. To be used for testing food products only. Not to be ingested or applied to the skin.

DON-V 40 °C INCUBATOR PROCEDURE

SETUP

1. Scan the incubator test kit bar code for the lot of strips that you are using. The incubator bar code will have “TV” in the number.
2. Turn on the power for mini-incubator and add 0.5 mL of purified water in the 2 diagonal corner wells. Pre-set temperature at 40 °C and let warm up for 10 minutes.



Add 0.5 mL purified water

SAMPLE EXTRACTION

1. Weigh 5 g ground sample* into an extraction tube.
2. Measure 20 mL of distilled water with a graduated cylinder and pour the water into the extraction tube.
3. Cover the extraction tube and vortex at high speed for 2 minutes.
4. Filter the extract into a clean extraction tube.

**wheat and corn can be used*

PROCEDURE

5. Place a strip test vial in the rack. Add 200 μL purified water to the strip test vial and then transfer 100 μL of extract into the water using the same pipette tip. Mix well by vortexing.
6. Transfer 100 μL of the DON-V diluent-T to a new strip test vial.
7. Using the same pipette tip add 100 μL of the diluted sample extract from step 5 to the vial from step 6. Cover vial and mix well by vortexing.
8. Place above mixture from step 7 and a DON-V strip cassette into the mini-incubator, cover with the lid and incubate for 2 minutes.
9. Transfer 100 μL of the pre-warmed solution from step 8 to the circular opening on the pre-warmed DON-V strip at a rate of about 1 drop per second. Be sure to hold the pipette vertically. Cover with the lid of the incubator.
10. Allow the strip test to develop for 5 minutes in the 40 °C incubator.

11. Insert the DON-V strip test into the Vertu reader (circular opening side in first).
12. Press the center key on the reader to take a reading.
13. To print the results, move the cursor to “P” in the upper left hand corner of the display using the arrow keys, then press the center key.
14. To run the next sample, move the cursor to “NT” using the arrow keys and press the center key. If you are using the same lot of strips, you are now ready to insert the next sample. If you are using a different lot of strips, you will need to scan in the new bar code.

RESULTS OUT OF RANGE

15. If the sample reads “>Range” transfer 100 μL of diluted sample extract from step 5 into a new strip test vial.
16. Add 100 μL of water to the same strip test vial.
17. Transfer 200 μL of the DON-V diluent-T into the strip test vial, mix well (400 μL total).
18. Repeat steps 8 through 14 using diluted extract from step 17 rather than diluted extract from step 7.
19. Multiply the results by two.
20. If the reader displays “>Range” after dilution, the sample is greater than 10 ppm.

NOTES

1. When scanning in the bar using the bar code scanner, make sure the red + in the center of the bar code scanner is in the center of the bar code. You may need to move bar code scanner up and down to get the correct position for scanning. You will hear a beep when the bar code is accepted.
2. Make sure the lot number displayed on the reader is the same lot number as the strips.
3. Press the center key gently and quickly. Pressing the center key hard will turn the reader off.
4. If room temperature is lower than 20 °C (68 °F) or higher than 25 °C (77 °F), please use DON-V incubator method.

BENEFITS

Fast screening

Results in less than 5 minutes*

Simple

No special training required

Precise

Limits of detection as low as 0.2 ppm

Convenient

Easily performed onsite or in the lab

Accurate

Real-time data which can be printed

**after extraction*







A Waters Business

KEY LOCATIONS

Headquarters:

34 Maple Street
Milford, MA 01757
USA
Tel.: +1 800 338 4381
+1 508 482 4935
Fax: +1 508 482 4972

Orders:

1848 N. Deffer Drive
Nixa, MO 65714
USA
Tel.: +1 877 228 4244
+1 417 725 6588
Fax: +1 417 725 6102

www.vicam.com

Waters

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