

QuaTest DEMN Test Kit

(Imidacloprid & Cyromazine & Thiamethoxam & Carbofuran)

Art. No.: 100339-48T

This product utilizes the high affinity antibodies and capture protein against imidacloprid, cyromazine, thiamethoxam and carbofuran antibiotics, which can easily identify these potential hazardous substances in honey without any instrument.

1. Detection Limit (LOD) in honey sample

Items	EU MRL($\mu\text{g/L}$)	LOD($\mu\text{g/L}$)
Imidacloprid	50	20
Cyromazine	50	15
Thiamethoxam	50	3
Carbofuran	-	5

2. Kit components

- Test Strip, 48 pcs in 6 plastic bottles, 8 pcs / bottle.
- Concentrated buffer (10x), 25ml * 2
- Kit insert
- Incubator (optional)

3. Preparation

Preparation of diluent buffer

Bring the concentrated buffer (10x) to room temperature, make sure the crystals dissolved completely. Then dilute it with deionized water in the rate of **1:9**, store it as the diluent buffer at 2-8 °C.

Sample preparation

Weight **1 \pm 0.05 g** of honey, add it into a centrifuge tube, then add **4 ml** of diluent buffer, mix it fully.

4. Operations

- a) Read the instructions before experiment. Bring the test kit and samples to room temperature. Honey samples should be fully liquid without any agglomeration and deposition.
- b) Take bottles needed from the kit package, take out required wells and strips, and make proper marks. Please use the test strips within 1h. Seal the cap of the bottles and store the unneeded kit.
- c) Take 200ul of the honey sample into the microwell, then repeatedly absorb up and down for 5 times to mix the sample with the reagent in the wells completely. The mixture should be pink, and then start the timer.
- d) Incubate for **3 min at 40 °C**, and then insert the test strip into the well with the "**Immersed**" end fully dipped in to the mixed reagent and sample.
- e) Incubate for **7 min at 40 °C** again. Take out the strip; determine the result according to **Part 5**.

5. Result Determination

There are 4 lines on the strip, **Control line**, **Imidacloprid Line**, **Cyromazine Line** and **Thiamethoxam Line**, **Carbofuran Line** which are briefly used as "**Line C**", "**Line D**", "**Line E**", "**Line M**" and "**Line N**". The test results will depend on the color of these lines. The following diagram describes the result determination.

INVALID Line C has no color. In this case, the test will be invalid.

NEGATIVE

Imidacloprid Negative: Compare the color of Line D with Line C, if the color of Line D is deeper than Line C, the result will be negative.

Cyromazine Negative: Compare the color of Line E with Line C, if the color of Line E is deeper than Line C, the

result will be negative.

Thiamethoxam Negative: Compare the color of Line M with Line C, if the color of Line M is deeper than Line C, the result will be negative.

Carbofuran Negative: Compare the color of Line N with Line C, if the color of Line N is deeper than Line C, the result will be negative.

POSITIVE

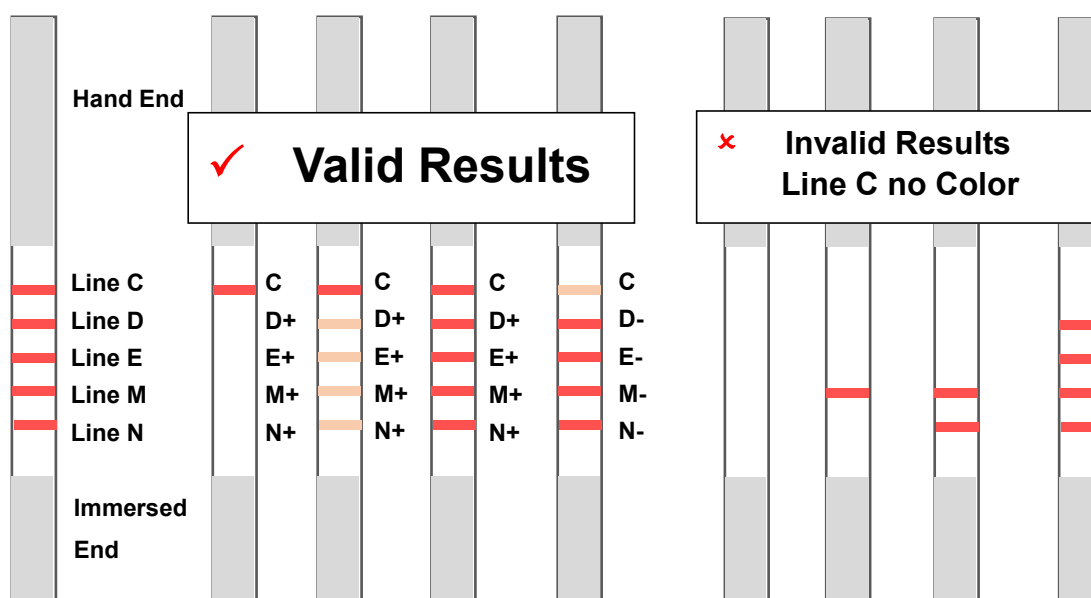
Imidacloprid Positive: Compare the color of Line D with Line C, if the color of Line D is lighter than or the same as Line C, the result will be positive. If there is no Line D, the result is also positive.

Cyromazine Positive: Compare the color of Line E with Line C, if the color of Line E is lighter than or the same as Line C, the result will be positive. If there is no Line E, the result is also positive.

Thiamethoxam Positive: Compare the color of Line L with Line C, if the color of Line M is lighter than or the same as Line M, the result will be positive. If there is no Line M, the result is also positive.

Carbofuran Positive: Compare the color of Line N with Line C, if the color of Line N is lighter than or the same as Line C, the result will be positive. If there is no Line N, the result is also positive.

PLEASE NOTICE Line C is used as a quality indicator, which will always appear regardless of the D/E/M/N line. If Control line does NOT appear, this indicates that the result is invalid. Users please check the kit insert again and repeat the assay with new test strip.



6. Specificity

The results are all negative when test carbendazim, carbaryl and paraquat with the concentration of 1000 µg/kg, the cross reaction rate between imidacloprid and acetamiprid is 4%, and the cross reaction rate between cyromazine and melamine is 15%.

7. Storage

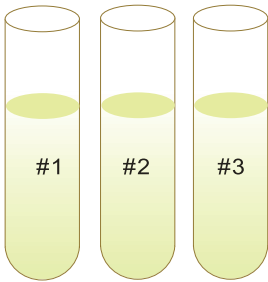
2-8 °C in cool dark place, do not freeze. The kit is valid for 12 months. Lot No. and expired date are printed on the package.

8. Notice and Precautions for a successful experiment.

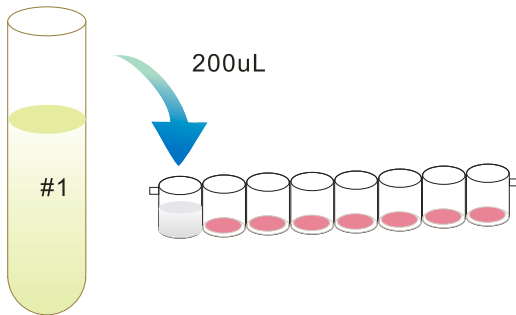
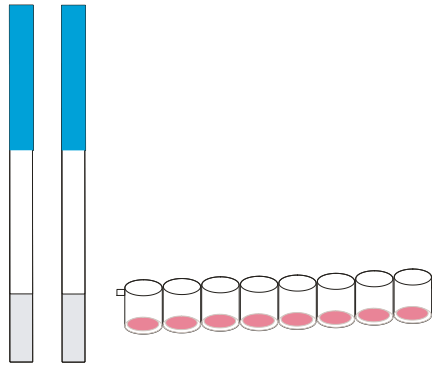
- Perform the assay following the instruction; do not touch the membrane of the strip.
- Seal the bottle after taking out required strips.
- This strip is used **for only once**; please do not use it repeatedly.
- This kit is only for screening test, positive result should be further confirmed with other method.

Schematic Assay Steps

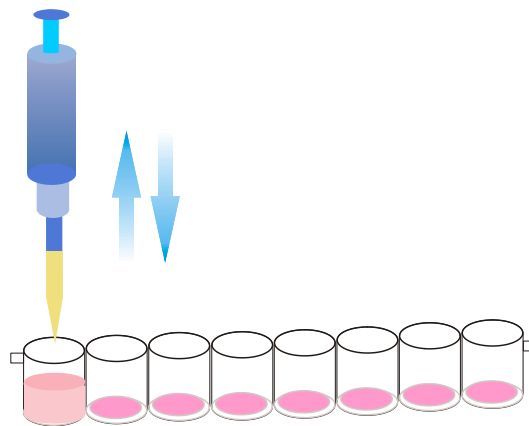
1. Bring all test samples to room temperature; number them to keep record.



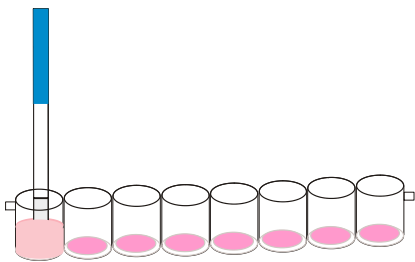
2. Take test kit according to your sample number and also number the kit wells to keep record and consistency.



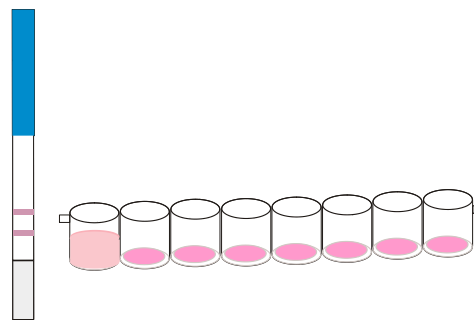
3. Take 200ul sample into the wells using pipet. You can also then put the well into the well holder to avoid sample spill.



4. Absorb up and down for 5 times to mix sample with reagent completely. Start the timer when the mixture is pink. **Incubate for 3 min at 40 °C.**



5. Insert the "Immersed" end of the strip into the mixture; **Incubate for 7min at 40 °C again.**



6. Take out the strip; judge the result according to **kit instruction.**

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