

**Introduction.**

Tetrasensor Honey is a receptor-based assay for rapid determination of the amount of every tetracycline molecules present in honey sample. The sensitivity is set at 10 ppb. This means that 100% of honey having 10 ppb of tetracycline gives a POSITIVE answer.

**Reaction mechanism.**

Tetrasensor is a competitive test that exploits the activity of a receptor for the recognition of tetracycline molecules present in the Honey. The test requires the use of two elements provided in the kit. The first element is a reagent containing a certain amount of labeled receptor and the second is a dipstick consisting of a set of membrane where two capture lines are printed in green. The diluted honey sample is first added together with the receptor where incubation takes place at room temperature for 15 minutes. After 15 minutes the dipstick is dipped into the vial and a second incubation take place for 15 minutes. When the liquid passes through the green capture lines, red colour appears. The first line captures the remaining active receptor and the second line takes a certain amount of the excess of reagent that has passed through the first line. This second upper line serves as a control line and becomes visible in all cases.

**Composition of the kit.**

Each kit contains everything needed to perform 100 tests.

- 100 Reagent Vials containing the freeze-dried labeled receptor.
- 4 x 25 Dipsticks placed in plastic bottle with desiccant.
- 100 Tubes containing Honey Buffer ready to use for Honey Dilution.
- 100 Tips for Minipet.
- 1 Minipet of 200 µl
- 1 information notice.

*Disposable Pipettes to take liquid honey are available on request.*

**General Remarks.**

We recommend storing your Kit at 4°C. upon arrival.

Let products reach room temperature before opening and avoid exposure to moisture.

The best temperature to perform the test is room temperature around 20°C.

**The Honey Procedure.**

This procedure is dedicated for honey analysis, the limit of the detection is set around 10 ppb for tetracycline.

1. Wash and dry hands thoroughly and take the box out of the fridge to reach room temperature before opening.
2. Take one individual Honey Buffer tube, tap the tube against a solid surface to bring liquid down to the bottom to avoid presence of liquid into the cap.
3. Unscrew the cap and fill to the brim the inner hollow of the cap with liquid honey. Help you with one disposable pipette or with one plastic bar. Go slowly to avoid introducing air bubbles. *If you want to be more accurate place exactly 600 mg of honey into the dilution tube.*
4. Replace the cap on the tube and mix vigorously to get homogeneous dilution.
5. Take out one individual Reagent Vial and remove rubber cap.
6. Place a fresh Tip on the provided Minipet. Push the piston all the way, bring the Tip into the honey dilution and let the piston return slowly with the spring action. Transfer the sample of honey dilution completely (200µl) into the Reagent Vial.
7. Spin gently 3 times to dissolve the dried pellet of reagent.
8. Incubate fifteen (15) minutes at room temperature.
9. Open the Dipsticks bottle, take one Dipstick and close the bottle. Do not forget to write on each Dipstick the appropriate honey sample identification number.
10. After 15 minutes of incubation, dip one dipstick into the Vial in a way to submerge the bottom edge of the Dipstick (arrows downward) and continue incubation over fifteen (15) minutes at room temperature.
11. After 15 minutes, take out the Dipstick of the Vial. You get one or two colored red lines printed on your strip that must be interpreted immediately.
12. If you do not intent to run a new test, please close firmly the dipsticks bottle and replace the box containing Reagent Vials and Dipsticks into the fridge.

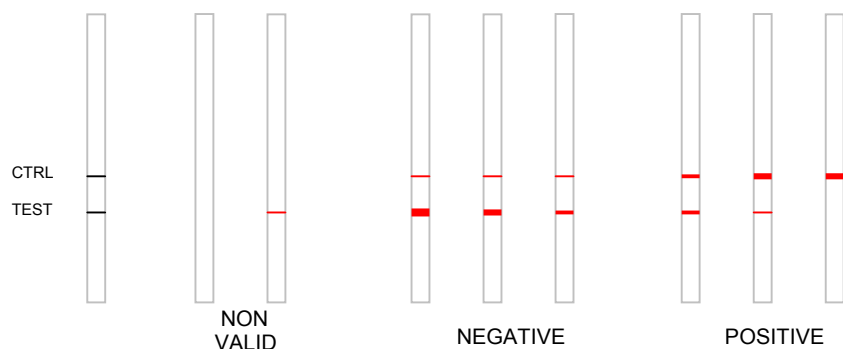
**Honey Test Procedure in summary:**

1. Add 1 cap 'brim-full' of honey (600 mg) into the Honey Dilution tube.
2. Mix vigorously to make a homogenate.
3. Add 200 µl of dilution into the Reagent Vial and mix 3 times.
4. Start incubation over 15 min at RT.
5. Dip one Dipstick into the vial.
6. Continue the incubation over 15 min at RT.
7. Interpret by comparing the colored lines you get on the strip.
8. Use Quantisensor for optical measurement and results storage.

**Eyes Interpretation of the test:**

Comparing the intensity between the bottom «TEST line» and the upper weak «CTRL line» does eyes interpretation of the result.

- If no red line occurs, the test is non valid.
- As being valid, the upper control (CTRL) line must turn to red.
- If the bottom « TEST » line is more visible than the upper « CTRL » line, the sample contains less tetracycline than 10 ppb, the sensitivity limit of the concerned kit (Sample is considered being NEGATIVE).
- If the bottom « TEST » line is as visible or less visible than the upper « CTRL » line, the sample contains as much - or more - tetracycline than 10 ppb (Sample is considered being POSITIVE).
- No bottom «TEST» line indicates that the sample contains far more tetracycline than 10 ppb ( HIGHLY POSITIVE SAMPLE).
- When hesitating, consider POSITIVE and confirm the reading 30 minutes later.

**Honey Tetrasensor Reagents.****Product reference: TH00624**

Reagents for 100 assays.  
Detection limit: 10 ppb.

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