

Imidacloprid: Honey Extraction Protocol

1. Intended use

For the extraction of Imidacloprid from honey samples.

2. Limit of Detection

The limit of detection of Imidacloprid in honey samples is 3.75 ng/mL (ppb).

3. Materials required

Scale or balance with at least 2-decimal capability

Disposable spatula

Glass vials (20 mL) with screw caps

Pipette(s) capable of delivering 20 µL-200 µL, 200 µL-1000 µL, and 1 mL-5 mL with disposable plastic tips

5 mL and 10 mL serological pipettes

Vortex mixer

Overhead tube rotator

ABRAXIS® Imidacloprid ELISA Kit (PN 500800)

ABRAXIS® Imidacloprid Sample Diluent (PN 500801)

4. Notes and Precautions

4.1 Pipettes should be calibrated prior to performing extraction.

4.2 All sample extractions and dilutions must be performed in glass vials.

4.3 Large volume of ABRAXIS® Imidacloprid Sample Diluent must be purchased when extracting multiple samples.

5. Extraction Procedure

5.1 Weigh 1 (+/-) 0.05 gram of honey sample into a 20 mL glass vial.

5.2 Add 10 mL of ABRAXIS® Imidacloprid Sample Diluent to honey sample (10-fold dilution). Screw cap on tightly and vortex or mix for 15-20 seconds.

5.3 Place tube on a rotator at room temperature for 10 minutes.

5.4 Dilute sample 5-fold by adding 200 µL of extracted sample to 800 µL ABRAXIS® Imidacloprid Sample Diluent (included in ABRAXIS® Imidacloprid ELISA kit. Additional buffers can be ordered PN 500801).

5.5 The sample is ready for analysis, see ABRAXIS® Imidacloprid ELISA user's guide (Section F. Assay Procedure).

6. Evaluation of Results

The extracted sample assay results must be multiplied by a factor of 50 to account for the extraction dilution.

Assay result (ppb) x dilution factor = concentration of Imidacloprid in honey sample. Assay results showing a lower concentration than Standard 1 (0.075 ppb) are considered to be negative. Assay results containing a higher concentration than Standard 6 (1.2 ppb) may be diluted to obtain accurate results.

7. For ordering or technical assistance contact:

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