

## **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) maybe diluted to obtain accurate results.

### **7. For ordering or technical assistance contact:**

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