Promega

Product Application

DNA purification from bees using Maxwell® RSC PureFood GMO and Authentication Kit

High quality DNA was purified from bee samples using the Maxwell® RSC PureFood GMO and Authentication Kit (Cat.# AS1600)

Kit: Maxwell® RSC PureFood GMO and Authentication Kit (Cat.# AS1600)

Analyses: UV absorbance, dye-based quantitation

Sample Type(s): Bee

Input: around 120mg

Materials Required:

- Maxwell® RSC Instrument (Cat.# AS4500)
- Maxwell® RSC PureFood GMO and Authentication kit (Cat.# AS1600)

This protocol was developed by Promega Applications Scientists and is intended for research use only.

Users are responsible for determining suitability of the protocol for their application.

For further information, see Technical Manual TM473, available at: **www.promega.com/protocols**

or contact Technical Services at: **techserv@promega.com**

Protocol:

1. Grind bees using mortar and pestle pre cooled at -80°C.
2. Add 1 ml of CTAB buffer, 40 µl of Proteinase K and 20 µl of RNase A to each sample tube and vortex vigorously.
3. Incubate samples at 65°C, 600 rpm, for 30 minutes.
4. Vortex and invert sample tubes; then centrifuge at high speed for 10 minutes.
5. Add 100 µl of elution buffer to elution tubes.
6. Add 300 µl of lysis buffer and 300 µl of sample into the well #1 of the Maxwell® cartridge.
7. Place cartridges and elution tubes in the Maxwell® RSC rack.
8. Run the Maxwell® RSC Instrument using the PureFood GMO and Authentication method.

Results:

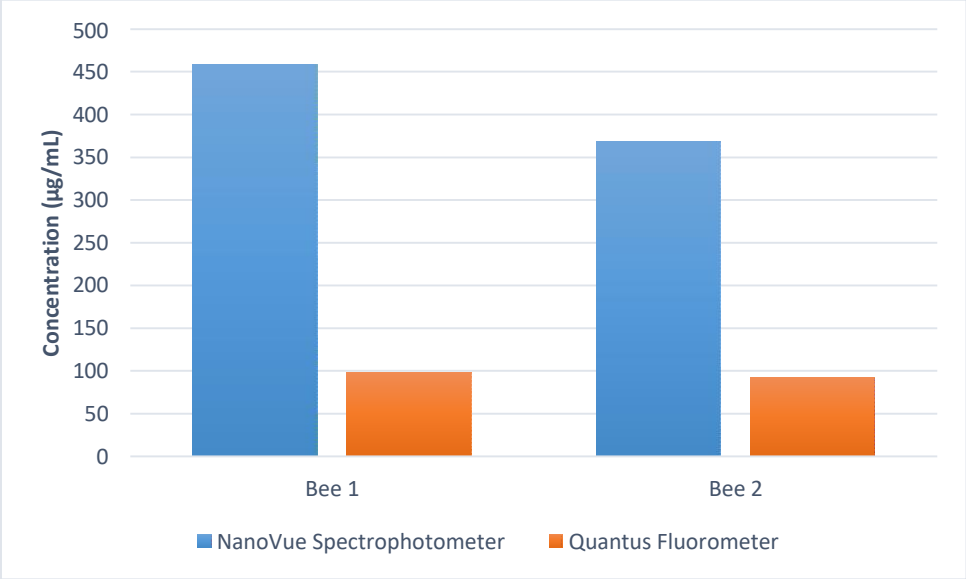

Figure 1. DNA concentration of DNA purified from bee with the Maxwell® RSC Purefood GMO and Authentication Kit. Assessed by NanoVue™ spectrophotometer and QuantiFluor® dsDNA System (Cat.# E2670) with Quantus® Fluorometer (Cat. #E6150). Extraction performed on 2 bees (bee 1: 115mg; bee 2:123mg).

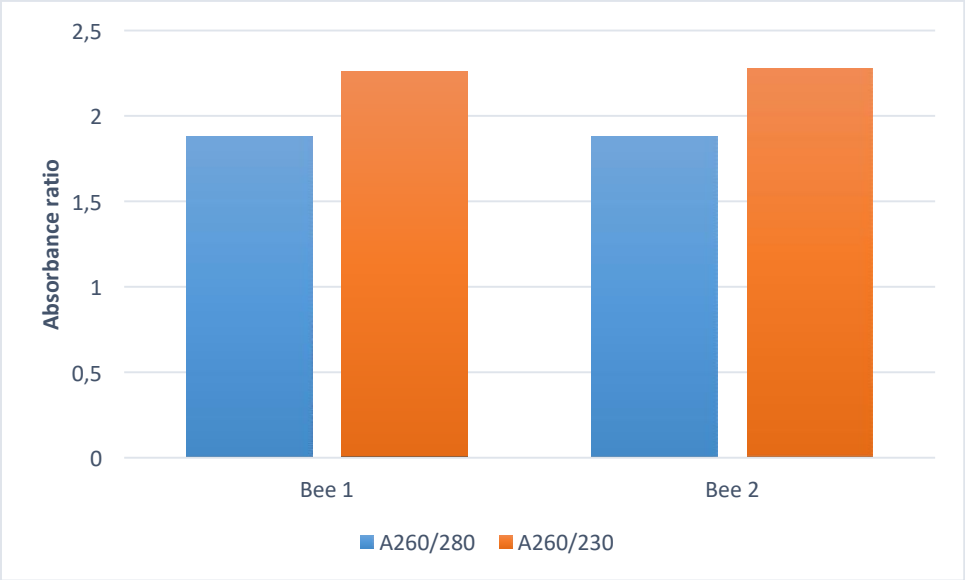

Figure 2. Purity ratios of DNA purified from bee with the Maxwell® RSC Purefood GMO and Authentication Kit. Absorbance ratios $A_{260/280}$ and $A_{260/230}$, determined by NanoVue™ spectrophotometer. Extraction performed on 2 bees (bee 1: 115mg; bee 2:123mg)