

Nucleic Acid Isolation from Egg White and Whole Egg using the Maxwell® RSC System

Isolate amplifiable nucleic acid from egg white and whole egg using Maxwell® RSC Instrument.

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

Analyses: qPCR

Sample Type(s): Up to 500µl of egg white and whole egg

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. Pipet up to 500µl of egg white or whole egg mixture into a 1.5ml tube.
2. Add 600µl of CTAB buffer and 30µl of Proteinase K to sample.
3. Vortex briefly to mix.
4. Place in heat block at 60°C for 30 minutes.
5. Prepare cartridges as described in section 5.A of the Technical Manual (TM473).
6. Spin at room temperature for 10 minutes at $\geq 16,000 \times g$.
7. Transfer 300µl of supernatant to well #1 of the prepared Maxwell® Cartridge.
8. Run samples on the Maxwell® RSC using the PureFood GMO and Authentication Protocol.

Results:

Nucleic acid was isolated from chicken egg white and whole egg (100µl, 300µl and 500µl) using the Maxwell® RSC PureFood GMO and Authentication Kit (Cat.# AS1600) following the protocol described above. Results are described in the figures below.

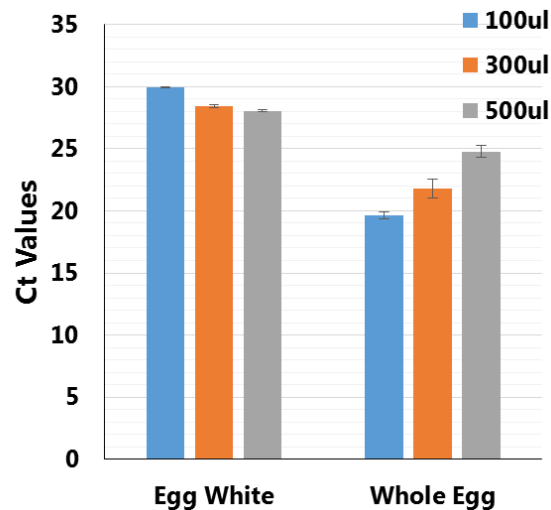


Figure 1. Ct values of nucleic acid isolated from egg components with Maxwell® RSC PureFood GMO and Authentication Kit. Amplifications were performed using GoTaq® qPCR Master Mix with universal animal primers (average $\pm$ standard deviation; N=3).

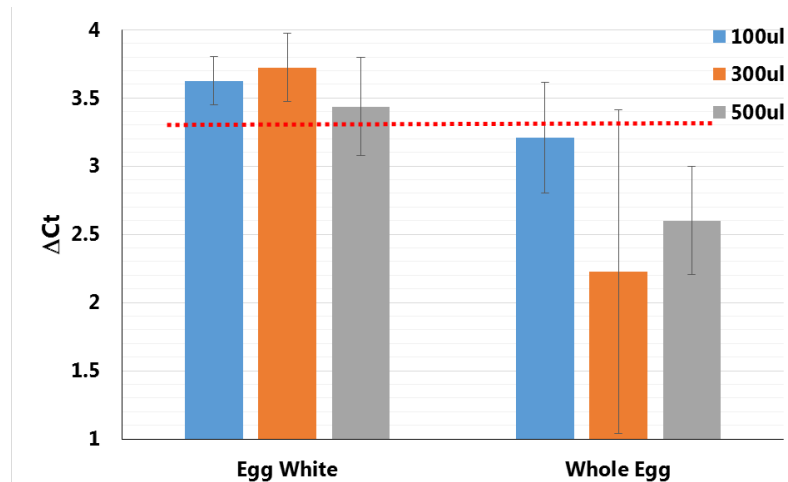


Figure 2. Δ Ct values of undiluted and tenfold diluted nucleic acid isolated from egg components with Maxwell® RSC PureFood GMO and Authentication Kit. Amplifications were performed using GoTaq® qPCR Master Mix with universal animal primers. Red dotted line indicates Ct value of 3.33. Δ Ct values above or close to 3.3 indicate absence of inhibition (average $\pm$ standard deviation; N=3).