Promega

Product Application

Flour DNA Purification

Isolate high quality, amplifiable DNA from flour using the Maxwell® 16 System.

Kit: Maxwell® 16 LEV DNA plant Kit (Cat. #AS1420)

Analyses: GoTaq® qPCR, QuantiFluor® quantitation

Sample Type(s): flour - bread, chestnut, wheat, and buckwheat

Input: up to 20mg

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.

Further information can be found in Technical Manual #TM414, available at: **www.promega.com/protocols**

Materials Required:

- Maxwell® 16 Instrument (Cat. #AS2000) with firmware version 4.97 or later
- Maxwell® 16 LEV Plant DNA Kit (Cat.#AS1420)
- Microcentrifuge

Protocol:

1. Place up to 20mg of flour into each tube.
2. Add 300µl of Tail Lysis Buffer (TLA) to each sample.
3. Add 10µl of RNase A (optional) to each sample.
4. Vortex for 15 seconds.
5. Place the extraction tubes into a centrifuge and spin briefly to remove any solid particulates.
6. Add 300µl of Nuclease Free Water to well #1 of each Maxwell® 16 Reagent Cartridge. Transfer all liquid and any remaining foam to well #1, being careful not to transfer any solid material to the cartridge.
7. Place one of the supplied elution tubes into the sample rack and add 50µl of the supplied Elution Buffer for each sample.
8. Place the plunger in the indicated position of the cartridge.
9. Select LEV configuration on the Maxwell® and select method: RUN, DNA: Plant. Start run.

Results:

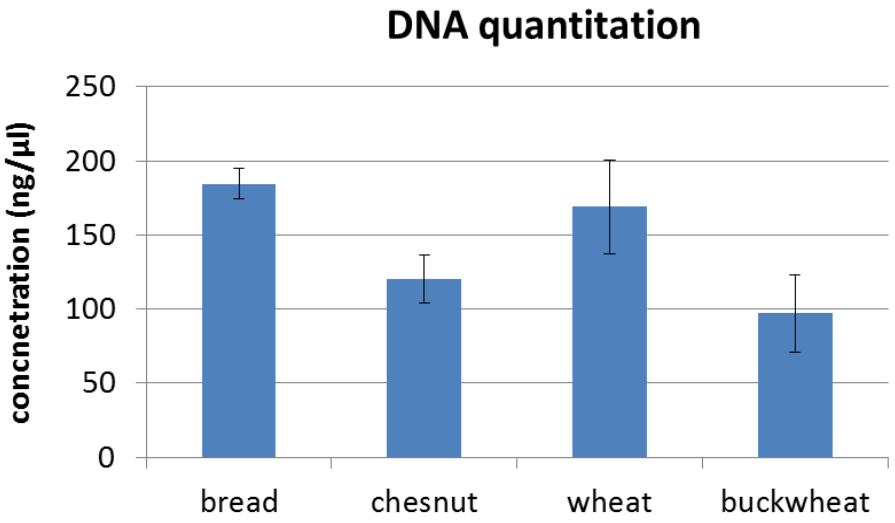

Figure 1: Flour DNA concentrations based on quantitation using QuantiFluor® dsDNA System (Cat: E2670, n=3). Extraction performed on 20mg of material.

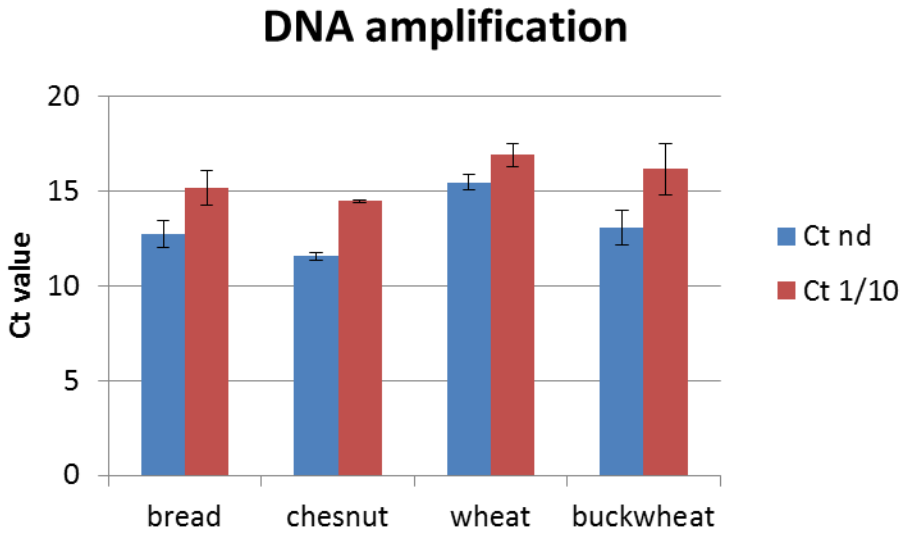

Figure 2 : Ct values for amplification of 1µl of flour DNA non-dilute (nd), or dilute by 1/10 in nuclease free water. Amplification was performed on 2 different extracted DNA by qPCR using GoTaq® qPCR Master Mix (Cat: A6001). Delta Ct indicates no PCR inhibitors.

