

Automation of sbeadex Lightning utilising the Lynx liquid handler

[sbeadex™ Lightning](#) offers a rapid and reliable solution for high-throughput DNA purifications, specifically designed for agricultural genomics. This chemistry is compatible with the [Lynx automated liquid handler from Dynamic Devices](#), a versatile system that facilitates optimised workflows tailored to sbeadex Lightning's requirements.

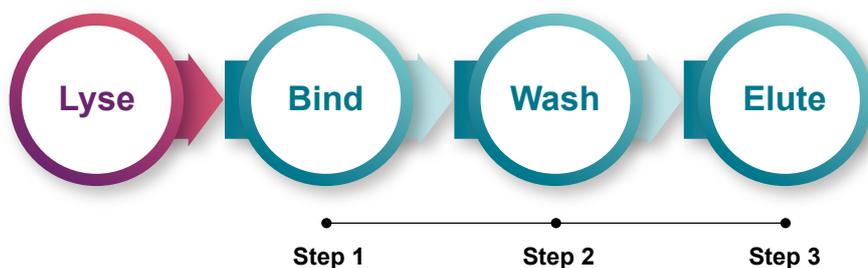


Figure 1. sbeadex Lightning nucleic acid purification protocol. By utilising a revolutionary novel one-step binding mechanism, sbeadex Lightning reduces the traditional magnetic bead-based nucleic acid purification workflow to a 3-step protocol (post-lysis) that typically requires just 5 minutes processing time.

Maize and soy lysates, prepared from seed, were processed on the Lynx platform, and the automated protocol was based on the standard established protocol for sbeadex Lightning chemistry (figure 1). The Lynx 900 instrument equipped with the Multi-Core Pipetting Arm (MCPA) was used, with both the 96 SV Pipetting Head and the 96 MagRod Head to facilitate efficient liquid handling and magnetic bead processing. The automated protocol (post-lysis) took under 7 minutes to complete per 96-well plate.

DNA of high concentration and purity was obtained for maize and soy (figure 2). This integration of sbeadex Lightning and the Lynx platform offers a robust and flexible solution for high-efficiency nucleic acid purification from plant species.

The LGC Biosearch Technologies sbeadex Lightning Kit provides a rapid and reliable solution for high-throughput DNA purification, which when integrated with the Lynx Automated Liquid Handler, delivers:

- **Ultra-fast purification**
7-minute automation for 96-well plate
- **High-throughput chemistry**
ensuring speed without compromising quality
- **Convenience and stability**
room temperature reagents
- **Versatile instrumentation**
seamlessly switch between liquid transfer and magnetic bead processing
- **Consistency and precision**
minimise risk of human error through automation

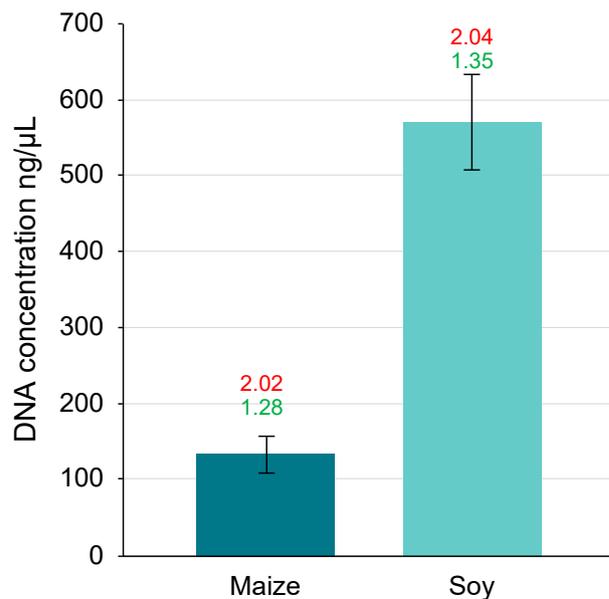


Figure 2. Mean DNA concentration and purity measurements achieved for DNA purified from maize and soy samples using the Lynx platform in conjunction with sbeadex Lightning. DNA concentration values were measured using spectrophotometry. DNA purity measurements estimated via mean absorbance ratios (mean absorbance values: red = $A_{260/280}$, green = $A_{260/230}$). Error bars represent standard deviation, n (maize) = 92, n (soy) = 90.

To learn more about sbeadex Lightning automation, contact us today!

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