

Automated Magnetic Bead Extraction



EXTRACTMAX™

FIND WHAT YOU DIDN'T KNOW YOU WERE LOOKING FOR!

Get fast, high-yield, and high-purity isolations without the need for long washing steps.

This is possible thanks to our exclusive Exclusion-based Sample Preparation (ESP™) technology. It is perfect for capturing weakly bound protein complexes without subjecting them to high shear forces from pipette-based wash steps. Plus, it prevents contamination, dilution, or discarding of the original samples.

REPRODUCIBILITY

Walk-away automation allows for hands-free operation, eliminating variability between users and enabling day-to-day result comparisons

MULTI-FUNCTIONAL

The dual head enables both liquid handling operations and magnetic bead manipulations.

SAFE AND EFFICIENT

Up to four samples can be extracted simultaneously, speeding up the process and freeing the user for more important tasks.

AUTONOMY

Full software control of the process allows the use of most magnetic beads and kits.



Figure 1
EXTRACTMAX™

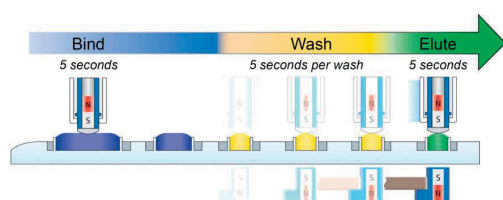


Figure 2

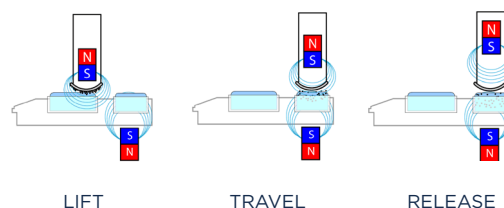


Figure 3

How it Works - Move Beads, not Liquids:

- Novel magnetic head captures the beads and moves them through a series of wash solutions
- Bind, wash, elute, and concentrate your molecule of interest in a single process
- Faster, gentler washing preserves weak interactions between molecules
- Capture weak binding molecules without disrupting unknown interactions
- Discover proteins you didn't know existed



Figure 4
PIPETMAX® 268

PIPETMAX® 268 + EXTRACTMAN® = EXTRACTMAX

Extractmax combines the tried-and-tested automation of Gilson's Personal Pipetting Robot, PIPETMAX 268, with a manual, innovative magnetic bead extraction platform, EXTRACTMAN. A novel magnetic head is covered with a disposable bead capture strip that protects it from contamination, while a custom-designed plate provides a series of wells for the sample, three washes, and a final elution. Up to four samples can be treated in parallel.



Figure 5
EXTRACTMAN®

EXTRACTMAX differs from traditional magnetic bead-based co-IP techniques by using Exclusion-based Sample Preparation (ESP™) technology, making it ideal for capturing weakly bound protein complexes without exposing them to high shear forces from pipette-based wash steps. Paired with non-porous magnetic beads, EXTRACTMAX enables high-yield, high-purity isolations without the need for long washing steps.

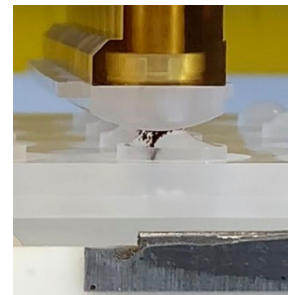


Figure 6
EXTRACTMAX - Faster, gentler washing for increased sample recovery and throughput while preserving weak interactions, resulting in the discovery of molecules you didn't know existed.

EXTRACTMAX improves the extraction, concentration, and purification of analytes (e.g., cells, proteins, nucleic acid, viruses) from a broad range of sample types (e.g., water, blood, urine, saliva, sewage) without contaminating, diluting, or discarding any of the original samples.

If you are interested in this automated “jumping bead” technology, please contact your local Gilson entity for a demo or to discuss implementing your application.