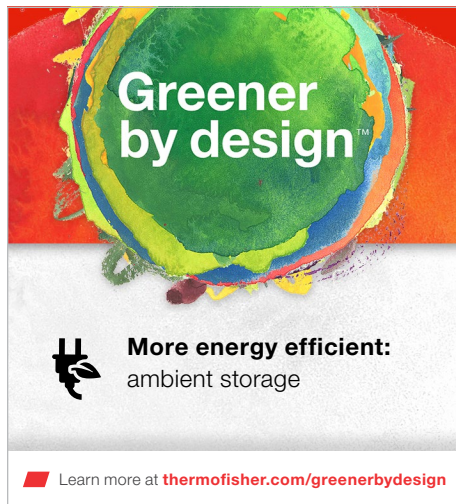


MagMAX Pure Bind magnetic beads



Introduction

We are committed to designing our products with the environment in mind. This fact sheet provides the rationale behind the environmental claim that Applied Biosystems™ MagMAX™ Pure Bind magnetic beads help promote more efficient energy use by eliminating the need for cold storage that is required for comparable products on the market.

Product description

MagMAX Pure Bind beads are a ready-to-use, magnetic bead-based formulation. They provide optimized size selection and PCR cleanup that removes small fragments, dNTPs, salts, primers and primer dimers. This magnetic bead technology allows for a consistent binding capacity and highly reproducible results. Optimized for DNA fragments larger than 90 bp, the entire automatable procedure takes 30 minutes for DNA fragment cleanup. This product can seamlessly integrate into established workflows using magnetic beads for size selection and PCR cleanup. MagMAX Pure Bind beads have been tailored for use on Thermo Scientific™ KingFisher™ Purification Systems, to help labs save time and resources beyond cold storage through the ability to automate.

Green feature

More energy efficient

MagMAX Pure Bind beads have been developed for storage at room temperature, freeing up valuable refrigerator space and helping reduce energy consumption. Cold storage is one of the primary sources of energy consumption in labs. A 2015 study on laboratory energy consumption by the

Center for Energy Efficient Laboratories (CEEL) [1] determined that California laboratories alone use at least 800 GWh of energy each year—generating the equivalent of yearly greenhouse gas emissions from 77,000 passenger cars [2]. According to the CEEL study, approximately 25% of the energy consumption in a typical lab is for cold storage.

Designing MagMAX Pure Bind beads to be stored at ambient temperature provides a significant energy-saving benefit over comparable products on the market that require cold storage, such as Agencourt™ AMPure™ XP reagent (Beckman Coulter) and Sera-Mag™ Select products (Cytiva).



Figure 1. MagMAX Pure Bind magnetic beads.

MagMAX Pure Bind beads also save time, as they do not need to be brought up to room temperature before use. They are shipped at ambient temperature, avoiding use of coolants and additional packaging for the shipment to maintain cold temperature in transit.

Additionally, all MagMAX Pure Bind beads are packaged in high-density polyethylene (HDPE) plastic bottles, a highly recyclable plastic [3].*

Designing MagMAX Pure Bind beads to be more energy efficient is a win for our customers, our company and the planet.

* Please consult with applicable federal, state and/or local regulatory agencies for waste disposal instructions.

References

1. Paradise, A (2015). "Market Assessment of Energy Efficiency Opportunities in Laboratories." www.etc-ca.com/sites/default/files/reports/ceel_market_assessment_et14pge7591.pdf
2. US EPA Greenhouse Gas Equivalencies Calculator. US EPA Greenhouse Gas Equivalencies Calculator. epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed May 15, 2023
3. United States Environmental Protection Agency Advancing Sustainable Materials Management: 2018 Tables and Figures. epa.gov/sites/default/files/2021-01/documents/2018_tables_and_figures_dec_2020_fnl_508.pdf, accessed May 15, 2023

 Find out more at thermofisher.com/magmaxpurebind

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