

Basic Molecular Biology: Nucleic Acid Extraction

Magnetic Bead-Based Extraction

Magnetic bead-based extraction is a method that utilizes small particles with a paramagnetic core that binds to nucleic acid. Magnetic bead-based extraction is commonly used in automated nucleic extraction systems.

Add the magnetic beads to a cell lysate to capture nucleic acid in solution.

Apply an external magnetic field to capture the beads while the solution containing other proteins and cellular components are removed.

Add a wash buffer to the magnetic beads to wash off additional contaminants.

Remove the magnetic field and add an elution buffer to release the nucleic acid from the magnetic beads.

Apply an external magnetic field to capture the beads in order to collect the eluted nucleic acid in solution.