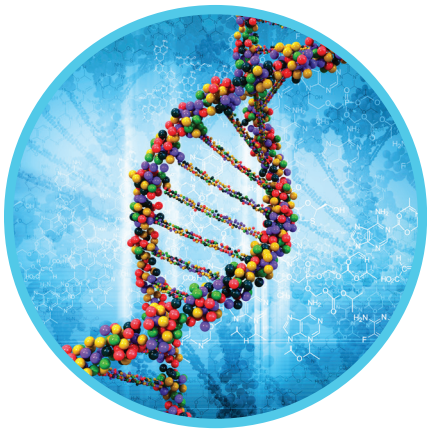


# NUCLEIC ACID PURIFICATION KITS



*Optimized  
for Bead Mill  
Homogenization*



*Purify High Quality DNA and RNA  
from Tissues, Soil, Feces, Cells,  
Bacteria and Fungi*



## OMNI BEAD MILL NUCLEIC PURIFICATION KITS

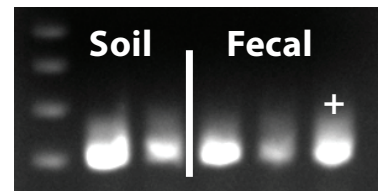
The **Omni Bead Mill Nucleic Purification Kits** are designed for use with Omni Bead Ruptor Bead Mill homogenizers to extract DNA or RNA from bacterial cells, fungal cells or tissues. Omni Nucleic Acid Purification Kits contain spin-column capture columns, pre-filled bead beating tubes and nontoxic reagents. The optimized reagents are designed specifically for sample dissociation through bead milling and ensure that high quality DNA and RNA is extracted in high yields. Omni Pre-filled bead tubes contain an optimized amount of lysing matrix and are certified DNase/RNase free to ensure purified DNA/RNA is of the highest quality. DNA and RNA purified using the Omni Bead Mill Nucleic Acid Purification Kits are ready for downstream applications such as PCR, RT-PCR, southern blots, northern blots, and enzyme digestions.

### FEATURES

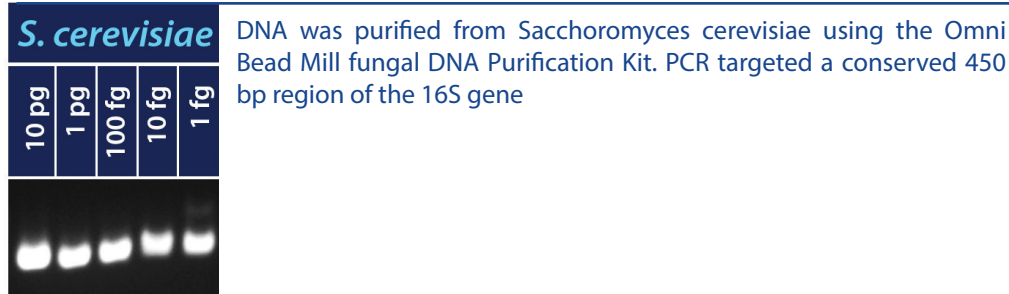
- Nucleic acid extraction kits designed specifically for bead mill homogenization
- Contains pre-filled bead tubes, spin-columns and extraction reagents
- Rapid DNA and RNA isolation
- PCR inhibitors removed
- Non toxic reagents with no organic extractions
- Pre-filled bead tubes certified DNase/RNase Free

## REMOVAL OF PCR INHIBITORS FROM SOIL AND FECES

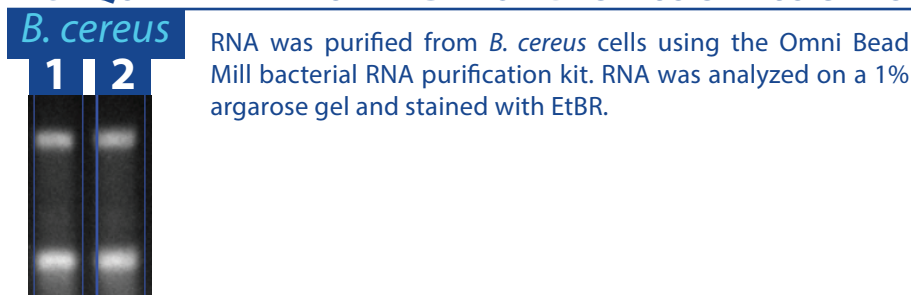
Each soil and fecal DNA sample was spiked with 70 ng of pGLO plasmid DNA. Genomic DNA was extracted using the Omni soil and fecal DNA kits. DNA was then subjected to end point PCR to detect the GFP gene (714 bp). It is important to note that no inhibitors were found from either of the extractions.



## PCR PRODUCTS OBTAINED FROM DNA ISOLATION OF *S. CEREVISIAE*



## HIGH QUALITY RNA PURIFIED FROM *BACILLUS CEREUS* CELLS

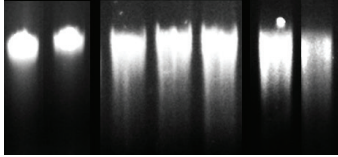


## GENOMIC DNA OBTAINED FROM 0.2 GRAMS OF SOIL



## HIGH QUALITY DNA OBTAINED FROM BACTERIA AND TISSUES

| <i>E.coli</i> |   | Rat Brain |   |   | Rat Heart |   |
|---------------|---|-----------|---|---|-----------|---|
| 1             | 2 | 3         | 4 | 5 | 6         | 7 |



DNA was purified using the Omni Bead Mill Bacterial and Tissue DNA Purification kits. DNA was analyzed on a 1% agarose/ E+Br gel

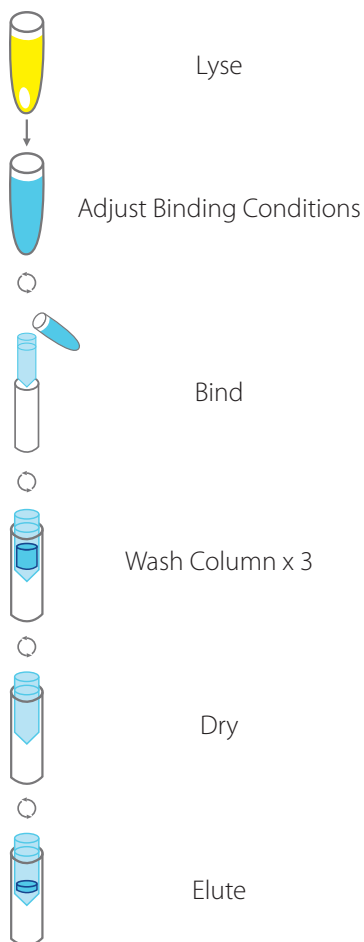
## EXAMPLE OF DNA PROTOCOLS

1. Samples are resuspended in bead mill lysis buffer.
2. Samples are dissociated through bead mill homogenization.
3. For Soil and Fecal Kits inhibitors are removed
4. Homogenate is passed through the Omni spin column to bind DNA or RNA.
5. Column is washed to remove contaminants.
6. DNA is eluted

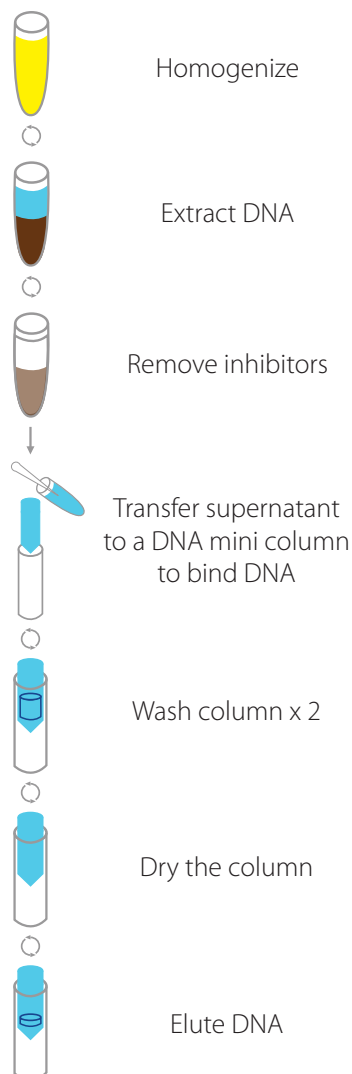
## EXAMPLE OF RNA PROTOCOL

1. Fungal cell walls are permeabilized with lyticase
2. Cell disruption through bead milling
3. RNA is bound to the spin-column matrix
4. Contaminants are removed through washing
5. High purity RNA is eluted from column

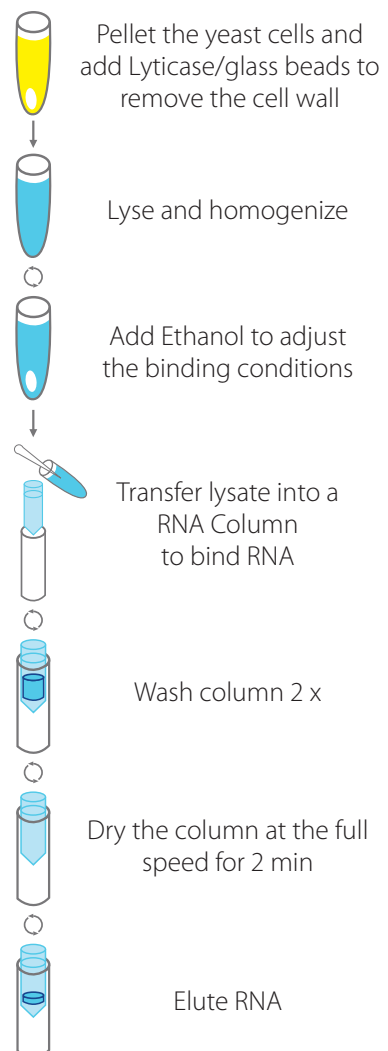
### TISSUE AND CELLS



### SOIL AND FECES



### YEAST AND BACTERIA



# OMNI BEAD MILL NUCLEIC ACID EXTRACTION KITS

| TARGET      | PRODUCT                     | PREPS | CATALOG # | SAMPLE SIZE                   | PRE-FILLED BEAD TUBES    |
|-------------|-----------------------------|-------|-----------|-------------------------------|--------------------------|
| Genomic DNA | Tissue DNA Kit              | 50    | 26-007    | Up to 30 mg tissue            |                          |
| Genomic DNA | Bead Mill Tissue DNA Kit    | 50    | 26-007B   | Up to 30 mg tissue            | 2 mL with 2.8 mm ceramic |
| Genomic DNA | Bacteria DNA Kit            | 50    | 26-008    | Up to 3x10 <sup>7</sup> cells |                          |
| Genomic DNA | Bead Mill Bacteria DNA Kit  | 50    | 26-008B   | Up to 3x10 <sup>7</sup> cells | 2 mL with 0.5 mm glass   |
| Genomic DNA | Yeast DNA Kit               | 50    | 26-009    | Up to 3x10 <sup>7</sup> cells |                          |
| Genomic DNA | Bead Mill Yeast DNA Kit     | 50    | 26-009B   | Up to 3x10 <sup>7</sup> cells | 2 mL with 0.5 mm glass   |
| RNA         | Tissue RNA Kit              | 50    | 26-010    | Up to 30 mg tissue            |                          |
| RNA         | Bead Mill Tissue RNA Kit    | 50    | 26-010B   | Up to 30 mg tissue            | 2 mL with 2.8 mm ceramic |
| RNA         | Bacteria RNA Kit            | 50    | 26-011    | Up to 3x10 <sup>7</sup> cells |                          |
| RNA         | Bead Mill Bacteria RNA Kit  | 50    | 26-011B   | Up to 3x10 <sup>7</sup> cells | 2 mL with 0.5 mm glass   |
| RNA         | Yeast RNA Kit               | 50    | 26-012    | Up to 3x10 <sup>7</sup> cells |                          |
| RNA         | Bead Mill Yeast RNA Kit     | 50    | 26-012B   | Up to 3x10 <sup>7</sup> cells | 2 mL with 0.5 mm glass   |
| Genomic DNA | Bead Mill Soil DNA Kit      | 50    | 26-013G   | Up to 0.25 g soil             | 2 mL with 0.7 mm garnet  |
| Genomic DNA | Bead Mill Soil Midi DNA Kit | 50    | 26-013B   | Up to 1 g soil                | 30 g bulk 0.5 mm glass   |
| Genomic DNA | Bead Mill Fecal DNA Kit     | 50    | 26-014B   | Up to 0.25 g feces            | 2 mL with 0.5 mm glass   |

