

Product Information

MycoPolyzyme

For use with yeast and fungal lysis, free of DNA contaminants, suitable for Microbiome research

SAE0200

Product Description

Metagenomics is an expanding field of basic and applied research which looks at all DNA that has been isolated directly from given single samples (such as environmental samples or biological organisms).^{1,2} Metagenomics allows for the investigation of microbes that exist in extreme environments, and which have been historically difficult to isolate, culture, and study.³ Metagenomics has revealed the existence of novel microbial species.⁴ Applications of metagenomic studies include public health data analysis,^{5,6} discovery of novel proteins, enzymes and natural products,^{7,8} environmental studies,^{9,10} and agricultural investigations.^{11,12}

The study of microbial communities has been revolutionized by the widespread adoption of culture-independent analytical techniques such as 16S rRNA gene sequencing and metagenomics. Since DNA contamination during sample preparation is a major problem of these sequence-based approaches,¹³ DNA extraction reagents free of microbial DNA contaminants are essential.

MycoPolyzyme for yeast and fungi is a mix of two enzymes, lyticase and chitinase, which may be used to lyse samples¹⁴⁻¹⁸ for such applications as microbiome studies. Since fungi have more rigid cell walls than bacteria, a specific enzyme mixture is needed for fungi lysis to achieve sufficient DNA extraction.

This purified MycoPolyzyme undergoes strict quality control testing to ensure the absence of detectable levels of contaminating microbial DNA, using 35 cycles of PCR amplification of 16S and 18S rDNA with universal primer sets.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the product at -20 °C.

Preparation Instructions

Solutions of MycoPolyzyme can be prepared in DNA-free water (Cat. No. MBD0025) or PBS, pH 7.5 (without EDTA, calcium, or magnesium). Prepare the solution at 5 mg/mL. Store in aliquots at -20 °C.

References

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