

xTractPure Blood RNA Extraction Kit

Effective Extraction of Total RNA from Whole Blood Samples with BioChain's xTractPure Blood RNA Extraction Kit

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Abstract

BioChain's xTractPure Blood RNA Extraction Kit significantly advances the extraction of high-quality RNA from whole blood samples, playing a crucial role in molecular biology and diagnostic research. Targeting applications in oncology, infectious disease research, and genetic disorder studies, this kit efficiently isolates RNA, achieving 5 µg from 100 µl elution volume. Its optimization for samples stored in PAXgene tubes addresses the critical need for reliable RNA extraction, facilitating advancements in personalized medicine and comprehensive disease understanding.

Introduction

The extraction of RNA from blood samples is pivotal yet challenging due to inherent RNase activity and the sample's complexity. BioChain's kit introduces a refined solution to these challenges, emphasizing ease of use, safety, and efficiency. The compatibility with automated systems like AnaPrep 48 and King Fisher Flex underscores its suitability for high-throughput lab settings, streamlining the RNA isolation process.

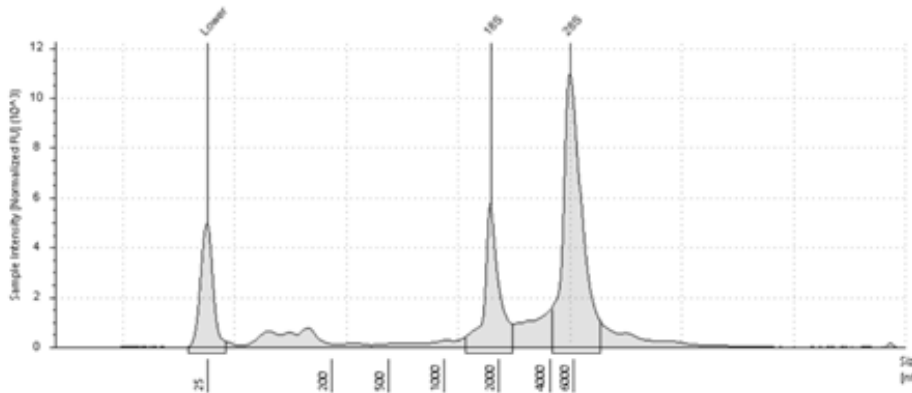
Product Overview

Leveraging advanced magnetic bead technology, the kit simplifies RNA isolation, allowing for processing up to 48 samples per hour. It's engineered to eliminate the use of proteinase K and hazardous chemicals, marking a significant step forward in lab safety and RNA purity. The kit's design ensures a seamless workflow, from sample preparation through to RNA elution, suitable for various downstream applications such as qPCR, NGS, and gene expression analysis.



Key Feature

- **Optimal Yield and Purity:** Up to 5 µg of RNA per 100 µl elution from a PAXgene-treated blood, with superior purity and integrity, evidenced by a 280/260 ratio of 1.8 to 2.0 and a RIN greater than 8.
- **Enhanced Safety and Efficiency:** By avoiding hazardous chemicals, the kit enhances lab safety and streamlines the RNA extraction process.
- **Broad Application Scope:** Facilitates a range of applications, proving essential for research in oncology, infectious diseases, and beyond.
- **High-Throughput Compatibility:** Designed to integrate with automated platforms, it supports efficient, high-volume sample processing.



Protocol Summary

The protocol is crafted for simplicity and effectiveness:

1. Begin with the stabilization of blood samples in PAXgene tubes.
2. Proceed with the preparation and centrifugation of samples to obtain a cell pellet.
3. Lyse cells and bind RNA to magnetic beads, followed by thorough washing steps.
4. Elute purified RNA in EDTA-free buffer, ready for various downstream applications.

Conclusion

The xTractPure Blood RNA Extraction Kit by BioChain represents a pivotal advancement in the field of molecular diagnostics and research. It offers an efficient, safe, and user-friendly solution for extracting high-quality RNA from blood samples, enabling rapid processing and high yields. This kit is indispensable for researchers aiming to push the boundaries of personalized medicine and deepen our understanding of complex diseases.

Product Information

Catalog No.	Product	Unit
Z2212007	xTractPure™ Blood RNA Extraction Kit	1 kit (96 preps)



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