PhaseAll™ **RNA-extraction reagent**

- High yield
- High purity
- Versatility

Reliable RNA, DNA and protein extraction from a single sample. PhaseAll™ is a powerful phenol/guanidine-based reagent for the simultaneous extraction of RNA, DNA and protein from biological samples.

Features

- Extraction efficiency: high-yield isolation of RNA, DNA, and proteins
- 3-from-1 workflow: streamlined nucleic acid and protein purification from a single sample, ideal for limited input material.
- Versatile sample compatibility: animal, plant, cultured cells, tissues, yeast, bacteria and biological fluids, high fat/ oil/polysaccharide samples.
- Maximised RNA integrity: high-purity RNA suitable for sensitive downstream applications such as RT-qPCR and RNA sequencing.
- DNA and protein recovery: efficient isolation of DNA and protein fractions from the same lysate.

Applications

- RNA Extraction
- RNA Sequencing - RNA Seq
- miRNA workflows
- DNA Extraction
- Protein Extraction - SDS-PAGE

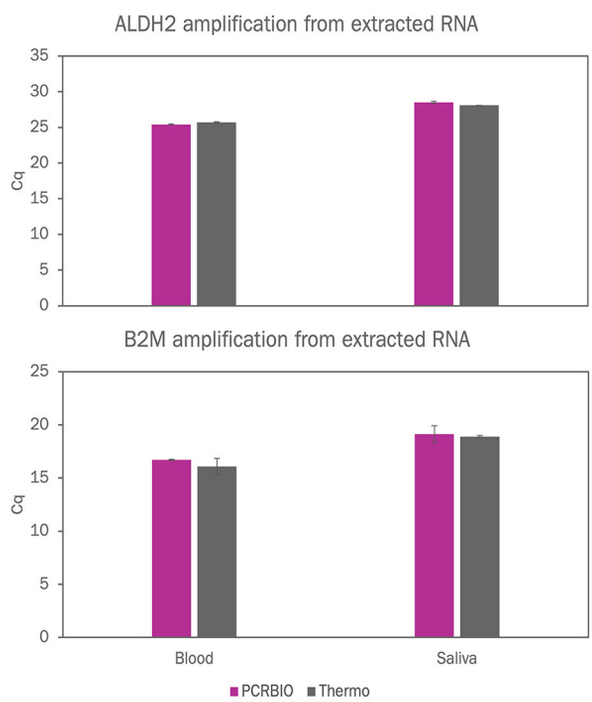

Fig 1. Amplification of housekeeping genes on RNA extracted with PhaseAll™ from blood and saliva samples.

PhaseAll™ (PCRBIO, purple) and TriZol (Thermo, gray) tri-extraction reagents were used to extract RNA from human blood and saliva samples. Extracted RNA was used as a template in RT-qPCR with the qPCRBIO® SyGreen 1-Step Kit against the alcohol-dehydrogenase (ALDH2) and beta-microtubulin (B2M) transcripts. There was no significant difference in the levels of either transcript, regardless of which extraction reagent was used.

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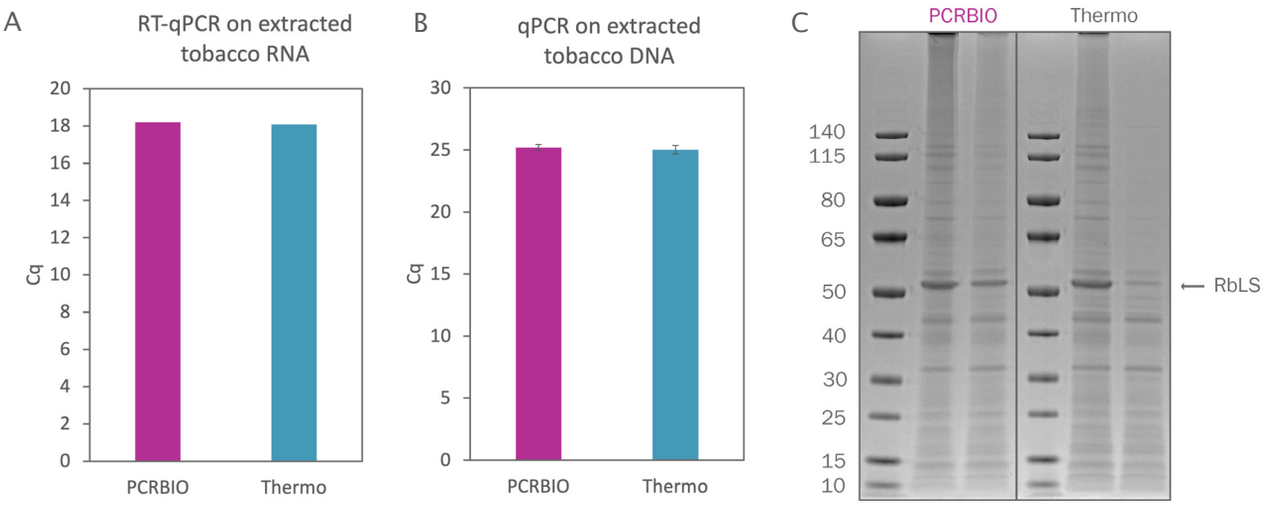

Fig 2. 3-from-1 RNA, DNA, and protein extraction from the same sample using PhaseAll™

RNA, DNA, and proteins were extracted from the same tobacco samples using PhaseAll™ and TriZol from Thermo. Extracted RNA and DNA were respectively used as templates in A) RT-qPCR using qPCRBIO SyGreen® 1-Step Kit against tobacco ubiquitin 1, and B) qPCR using qPCRBIO SyGreen® Mix against the tobacco TM50001 simple sequence reapeat (SSR), with no difference in the amount of RNA and DNA generated with either extraction reagent. Similarly, C) extracted proteins were analysed by SDS-PAGE and stained with Coomassie Briliant Blue. The putative RuBisCO large subunit (RbLS) is indicated by an arrow. PageRuler Prestained Protein Ladder was loaded next to each set of protein extracts, molecular weights in kDa are indicated to the left. PhaseAll™ and TriZol extraction solutions yield comparable amounts of DNA and protein from the same amounts of input sample.

3-from-1 macromolecule extraction

Get RNA, DNA and protein from one sample. Designed for robust phase separation and high-yield recovery, PhaseAll™ offers a versatile solution for researchers requiring multiple biomolecules from limited or precious sample material.

Versatile sample input

Compatible with a broad range of tissue types (plant, animal and human, FFPE-fixed samples), cells (cell cultures, bacteria, yeast) and biological fluids (saliva, blood, and others), this monophasic reagent simplifies nucleic acid and protein isolation workflows by consolidating them into a single, streamlined procedure without the need for multiple kits.

Wide range of downstream uses

Extracted macromolecules can be used as follows:

- RNA - cDNA synthesis for cloning, RT-PCR, (one-step) qPCR, or RNASeq library preparation, miRNA detection, microarrays, northern blot analysis, RNase protection assays, in vitro translation, poly(A) enrichment and most other RNA applications.
- DNA - (q)PCR, restriction enzyme digestion, Southern blot analysis, NGS library preparation, nuclease protection assays.
- Proteins - western blotting, SDS-PAGE, 2D gel electrophoresis.

Catalogue Number	Product Name	Pack Size	Presentation
PB15.20-01	PhaseAll™	100 extractions	1 x 100 mL

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