

Better RNA-Seq for Mammals with riboPOOL rRNA depletion kits

Improve and economize your RNA-Seq experiments by removing rRNAs

- ✓ Easy & fast rRNA removal workflow
- ✓ Efficient & Reproducible RNA-Sequencing
- ✓ rRNA removal for FFPE and Ribosome Profiling samples

Why riboPOOLS?

ribosomal RNA (rRNA) accounts for 80-90% of the transcriptome limiting detection efficiency of desired RNAs (e.g. mRNAs) by RNA-Sequencing (RNA-Seq). The removal of rRNAs greatly improves and economizes RNA-Seq. **riboPOOLS** are highly complex pools of biotinylated DNA oligos, designed using our Pack-Hunter approach. riboPOOLS offer a flexible & efficient solution for selective and bias-free rRNA depletion in any RNA sample.

Reproducible & Efficient rRNA Removal

riboPOOLS show high rRNA depletion efficacy across species, reaching up to 99%. For strongly degraded RNA samples we offer optimized riboPOOLS to achieve even & efficient rRNA removal of up to 95%. To meet the special requirements of ribosome profiling (Ribo-Seq) we develop dedicated **Ribo-Seq riboPOOLS** for a growing number of species. On top of excellent efficiency, in-house and customer data suggest excellent reproducibility between biological replicates.

Simple & Fast Workflow

riboPOOLS' hybridization-based workflow allows fast and easy ribosomal RNA removal. The workflow follows four main steps:

1. Preparation of siBeads & riboPOOL
2. Hybridization of riboPOOL to target RNA
3. rRNA depletion
4. RNA clean up

The riboPOOL workflow can be completed within 70 minutes and allows a wide RNA input range of 10 ng - 3 µg. The riboPOOL workflow can be scaled up to 10 µg and is automation-friendly for high throughput rRNA removal. After the rRNA removal, the resulting RNA can be processed by any library preparation kit.

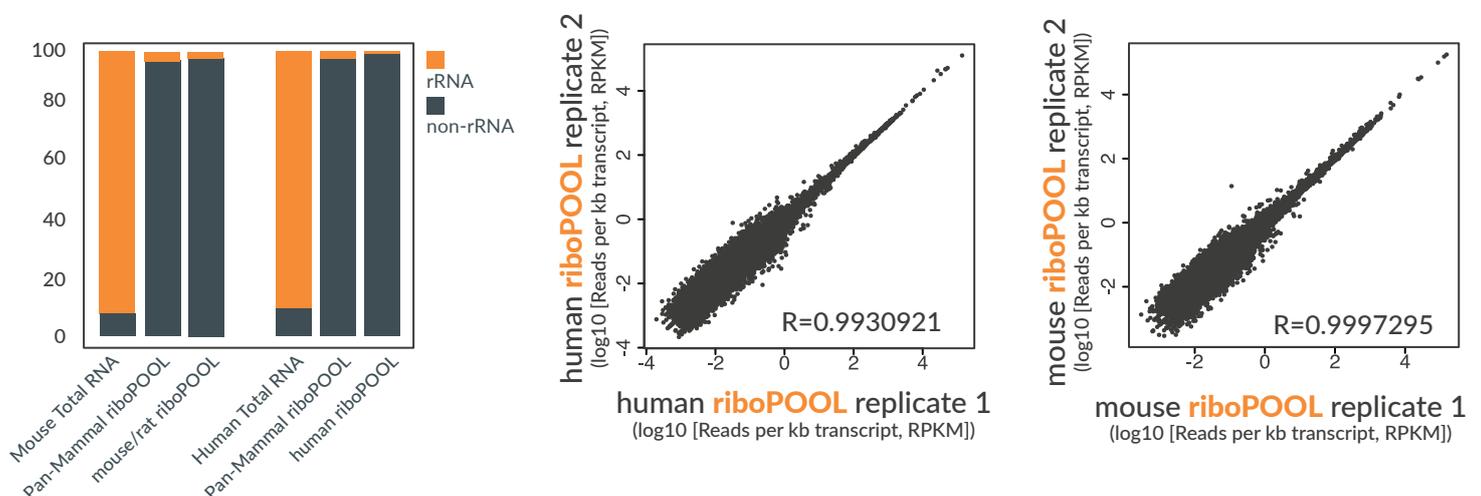


Figure 1: Highly reproducible & efficient rRNA depletion with riboPOOLS. Left: RNA-Seq data demonstrating rRNA depletion with Pan-Mammal riboPOOL, mouse/rat and human riboPOOL on 1µg human and 1µg mouse total RNA. Sequencing revealed 95-98% depletion efficiency. Middle: High reproducibility between biological replicates with human riboPOOL. Middle: High reproducibility between biological replicates with mouse riboPOOL.

Pan-riboPOOLS

| | riboPOOL ID: |
|----------------------------|--------------|
| Pan-Mammal riboPOOL | 041 |

Single Species riboPOOLS

| | riboPOOL ID: |
|----------------------------------|--------------|
| Mus musculus / Rattus Norvegicus | 055 |
| Homo sapiens | 054 |
| Chinchilla lanigera | 014 |
| human Globin mRNA | 025 |
| SARS-CoV-2 RNA | 038 |

Special Applications riboPOOLS

FFPE & degraded RNA samples

| | riboPOOL ID: |
|---|--------------|
| Mus musculus / Rattus Norvegicus | 058 |
| Homo sapiens | 057 |
| Homo sapiens / Mus musculus / Rattus Norvegicus | 056 |
| Equus caballus | 092 |
| Felis catus | 093 |

Ribosome Profiling (Ribo-Seq)

| | riboPOOL ID: |
|---|--------------|
| Mus musculus / Rattus Norvegicus | 052 |
| Homo sapiens | 042 |
| Homo sapiens / Mus musculus / Rattus Norvegicus | 050 |

Available Formats:

1. riboPOOL kits
(includes buffers, streptavidin-magnetic beads, reaction tubes and ethanol precipitation reagents)

| 6 rx Trial | 12 rx | 24 rx | 96 rx |
|------------------------|------------------------|------------------------|------------------------|
| Catalog-No. dp-K006 | Catalog-No. dp-K012 | Catalog-No. dp-K024 | Catalog-No. dp-K096 |

2. Probes alone with nuclease-free water

| 12 rx | 24 rx | 96 rx |
|------------------------|------------------------|------------------------|
| Catalog-No. dp-P012 | Catalog-No. dp-P024 | Catalog-No. dp-P096 |

3. siBeads

| 12 rx | 24 rx | 96 rx |
|------------------------|------------------------|------------------------|
| Catalog-No. dp-M012 | Catalog-No. dp-M024 | Catalog-No. dp-M096 |

Pan-riboPOOLS

The Pan-riboPOOLS are a versatile rRNA depletion solution that allows for simple mono- and multitranscriptomic studies using a single-step rRNA depletion for a phylogenetic group (e.g., bacteria, fungi, or mammals)

Single Species riboPOOLS

Single-species riboPOOLS are available for well-studied and lesser-known species (*Homo sapiens*, *Mus musculus*, *Rattus norvegicus* or *Chinchilla lanigera* and many more). Single-species riboPOOLS are specifically designed based on the species' rRNA to target both conserved and non-conserved regions.

Combination riboPOOLS

The option to combine riboPOOLS facilitates single-step rRNA depletion in mixed samples such as environmental, blood, or infected tissue (e.g., SARS-CoV-2) samples. The so-called combination riboPOOLS enable simple metatranscriptomics studies by combining two to four riboPOOLS of non-related species.

Special Applications riboPOOLS

riboPOOLS can be customized to fit your RNA samples. We create riboPOOLS for any mixture of RNA (e.g., Seawater samples), strongly degraded RNA (i.e., FFPE samples), or ribosome profiling (Ribo-Seq) samples

Custom riboPOOLS

Is your species not listed here? Let us set up a custom riboPOOL. Custom riboPOOLS include a one-time set-up fee. After set-up, you can purchase the custom riboPOOL as a ready-made riboPOOL at any kit or probe size.

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