LEXOGEN
The RNA Experts

lexogen.com

RiboCop – Select and Deplete.

Sequence what matters most with RiboCop rRNA Depletion.

Total RNA is comprised of large amounts of ribosomal RNA (rRNA) which can make up between ~80 – 98 % of all RNA molecules in a sample. Ribosomal RNA depletion removes these undesired transcripts to access transcripts of interest. Ultimately, rRNA depletion enables detection of all types of non-ribosomal RNAs, including coding mRNAs and non-coding transcripts such as snoRNAs, snRNAs, and lncRNAs. RiboCop rRNA Depletion Kits afford an undisturbed view of an organism's complete transcriptome and are available for various species, including human, mouse, rat, fish, bacteria, yeast, and plants.

Preserve your RNA and process challenging samples with ease.

Enzyme-free rRNA depletion preserves full-length RNA and is ideally suited for processing degraded and FFPE samples.

Maximize your unique sequencing reads without introducing depletion bias.

Sophisticated probe design allows efficient removal of undesired transcripts while maintaining unbiased transcriptome profiles.

Easily scale up your experiments with RiboCop's automation-friendly workflow.

RiboCop's convenient, magnetic bead-based workflow is compatible with automation on liquid handlers.

Unlock the full potential of low input RNA.

RiboCop supports the widest input range (1 ng – 1000 ng) with excellent performance for low input down to 1 ng total RNA.

For more information, visit our website lexogen.com or contact us at sales@lexogen.com

Enzym-free rRNA Depletion

RiboCop's rRNA depletion methodology is based on the removal of undesired transcripts via hybridization to specifically designed oligos and subsequent affinity purification of the rRNA-oligo hybrids with magnetic beads. The entire protocol is automation-friendly by utilizing magnetic beads for depletion and purification, and enables convenient and fast depletion in only 1.5 hours (Fig. 1).

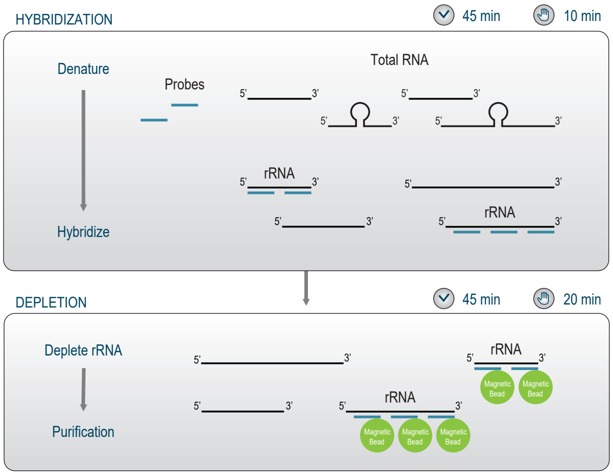

Figure 1 | Schematic overview of the RiboCop workflow.

RiboCop Preserves Full-length RNA

RiboCop treatment removes rRNA while preserving the length profile of coding and non-coding RNA with the majority of RNA averaging ~2000 nt in length (Fig. 2).

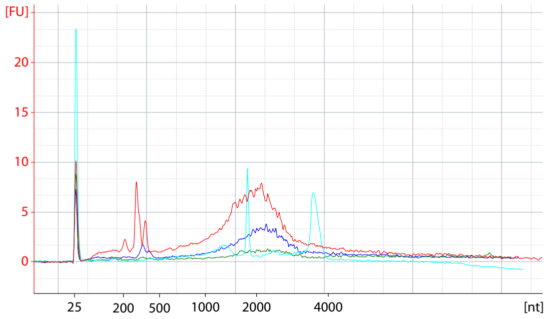

Figure 2 | RiboCop removes rRNA and preserve the length profile of coding and non-coding RNA. Overlay of bioanalyzer traces from 50 pg UHRR (Universal Human Reference RNA, cyan), and RiboCop for Human/Mouse/Rat treated RNA from 1 µg (red), 500 ng (blue), and 100 ng (green) UHRR input.

RiboCop Efficiently Removes Ribosomal RNA

Efficient removal of rRNA substantially decreases sequencing costs and drastically increases sensitivity of transcriptome analysis. RiboCop HMR V2 efficiently reduces rRNA reads to below 1% across a wide range of input RNA amounts while maintaining unbiased transcript abundance (Fig. 3).

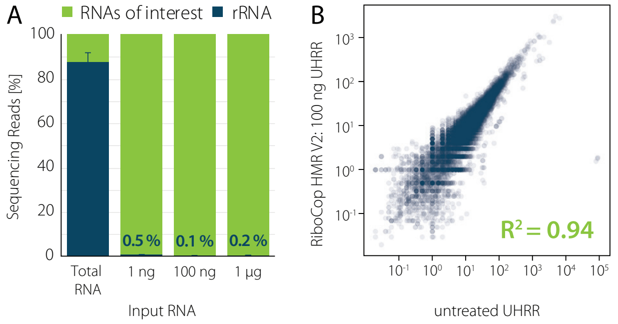

Figure 3 | RiboCop rRNA Depletion for Human/Mouse/Rat efficiently removes rRNA from RNA inputs between 1 ng and 1 µg total UHRR (A) while ensuring consistent transcript expression (B).

RiboCop Performance across species

Specific RiboCop probe mixes are available for efficient depletion of various species, including human, mouse, rat, bacteria, and yeast (Fig. 4).

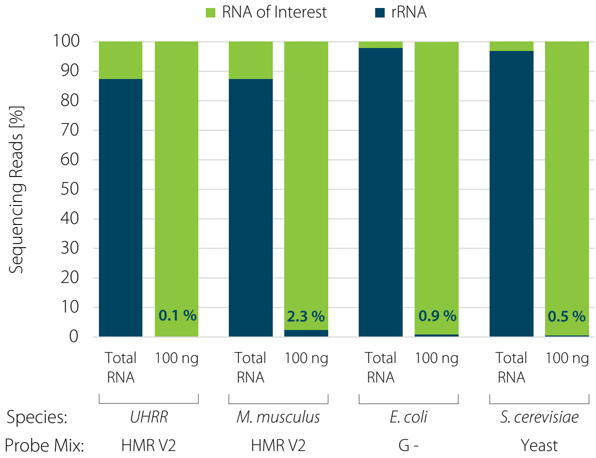

Figure 4 | RiboCop rRNA Depletion for UHRR, M. musculus liver RNA, E. coli, and S. cerevisiae RNA using specific probe mixes for Human/Mouse/Rat (HMR V2, Cat. No. 144), Gram-negative Bacteria (G-, Cat. No. 126), and Yeast (Cat. No. 190) respectively.

Sequence what matters most with RiboCop rRNA Depletion.

- **NEW!** RiboCop rRNA Depletion Kits are available for various species, including human, mouse, rat, blood samples, bacteria, and yeast.
- The enzyme-free workflow preserves RNA, is suitable for adapter ligation protocols, and is ideal for degraded and FFPE RNA.
- RiboCop rRNA depletion supports the widest input range (1 ng - 1000 ng) with excellent performance for low input RNA.
- Specifically tailored probe mixes ensure superior depletion efficiency and unbiased expression profiles for non-target transcripts.

Ordering Information

Cat. №	Product Name
125	RiboCop rRNA Depletion Kit for Mixed Bacterial Samples (META)
126	RiboCop rRNA Depletion Kit for Gram Negative Bacteria (G-)
127	RiboCop rRNA Depletion Kit for Gram Positive Bacteria (G+)
144	RiboCop rRNA Depletion Kit for Human/Mouse/Rat (HMR) V2
145	RiboCop rRNA Depletion Kit for Human/Mouse/Rat plus Globin (HMR+Globin)
190	RiboCop rRNA Depletion Kit for Yeast
237	RiboCop rRNA Depletion Kit for Plants
241	RiboCop rRNA Depletion Kit for Fish

For more information
and additional resources,
please visit our website.