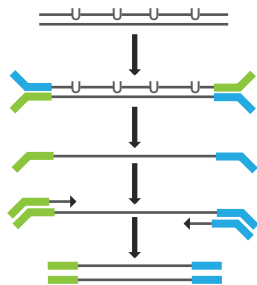


# LncRNA Sequencing

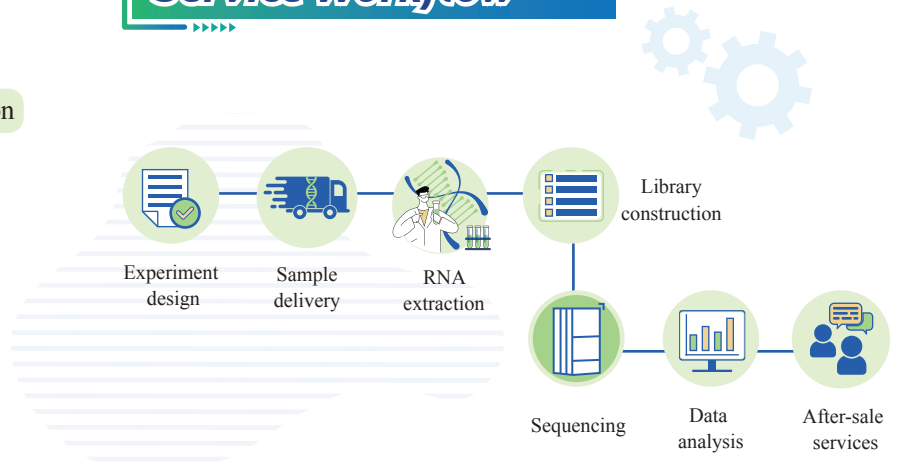
LncRNA (Long Non-Coding RNA) is a critical component of non-coding RNA, exceeding 200 nucleotides in length. It plays a crucial role in cellular activities. BMKGENE's advanced LncRNA sequencing and analysis technology can help with an in-depth understanding of cell differentiation, organism development, and human diseases. BMKGENE has a wealth of experience, completed the sequencing of the more than twenty thousand LncRNA samples.

## Technical Features

rRNA depletion and stranded library construction



## Service Workflow



## Bioinformatics

- ▶ Transcript classification;
- ▶ Combination analysis on lncRNA and mRNA;
- ▶ Gene structure analysis;
- ▶ LncRNA and mRNA expression quantification;
- ▶ Differential expression analysis;
- ▶ Function annotation and enrichment on DEGs and DE-lncRNA;
- ▶ LncRNA target prediction;
- ▶ DE-lncRNA protein-protein interaction;
- ▶ Conservation analysis;
- ▶ Known lncRNA analysis;
- ▶ miRNA precursor analysis;
- ▶ miRNA target prediction.

## Service Advantages

- Discovering lncRNA with significant regulatory functions and its relationship with specific biological processes.
- Studying the association between lncRNA and diseases provides new targets and strategies for diagnosing and treating diseases.
- Comprehensive lncRNA analysis consists of lncRNA profiling, target prediction, and joint analysis with mRNA.
- High-quality service guaranteed by optimized experimental SOP with 5 strict quality control points across the entire workflow. After -sale services are valid for 3 months upon project completion.
- Extensive experience in lncRNA sequencing with over 20,000 samples processed covering diverse species and sample types.

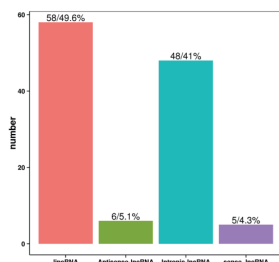
## Service Specifications

Library	Read Length	Recommended Data	Data Quality
rRNA depletion	Illumina PE150	10 / 16 Gb	Q30 ≥ 85%

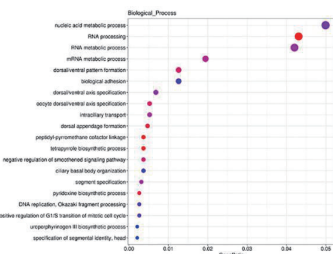
## Sample Requirements

Amount	Purity	Integrity
Conc. ≥ 80 ng/μL; Volume ≥ 10 μL; Total ≥ 0.5 μg	OD260/280=1.7-2.5 OD260/230=0.5-2.5 Limited or no protein or DNA contamination shown on gel.	For plants: RIN ≥ 6.5; For animals: RIN ≥ 7.0; 5.0 ≥ 28S/18S ≥ 1.0; limited or no baseline elevation

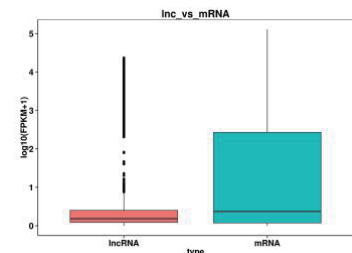
## Demo Results



1. lncRNA classification



2. Cis-targeted genes of DE-lncRNA enrichment analysis



3. mRNA vs lncRNA

## Featured Publications

Year	Journal	Article	Applications	DOI
2023	Biomaterials	The nanoformula of zoledronic acid and calcium carbonate targets osteoclasts and reverses osteoporosis	Disease treatment	10.1016/j.biomaterials.2023.122059
2022	Cell Proliferation	TGF-β1 regulates the lncRNA transcriptome of ovarian granulosa cells in a transcription activity-dependent manner	Epigenetic regulation	10.1111/cpr.13336
2022	International Journal of Molecular Sciences	Bidirectional lncRNA transfer between Cuscuta Parasites and their host plant	Host-parasite interaction	10.3390/ijms23010561



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