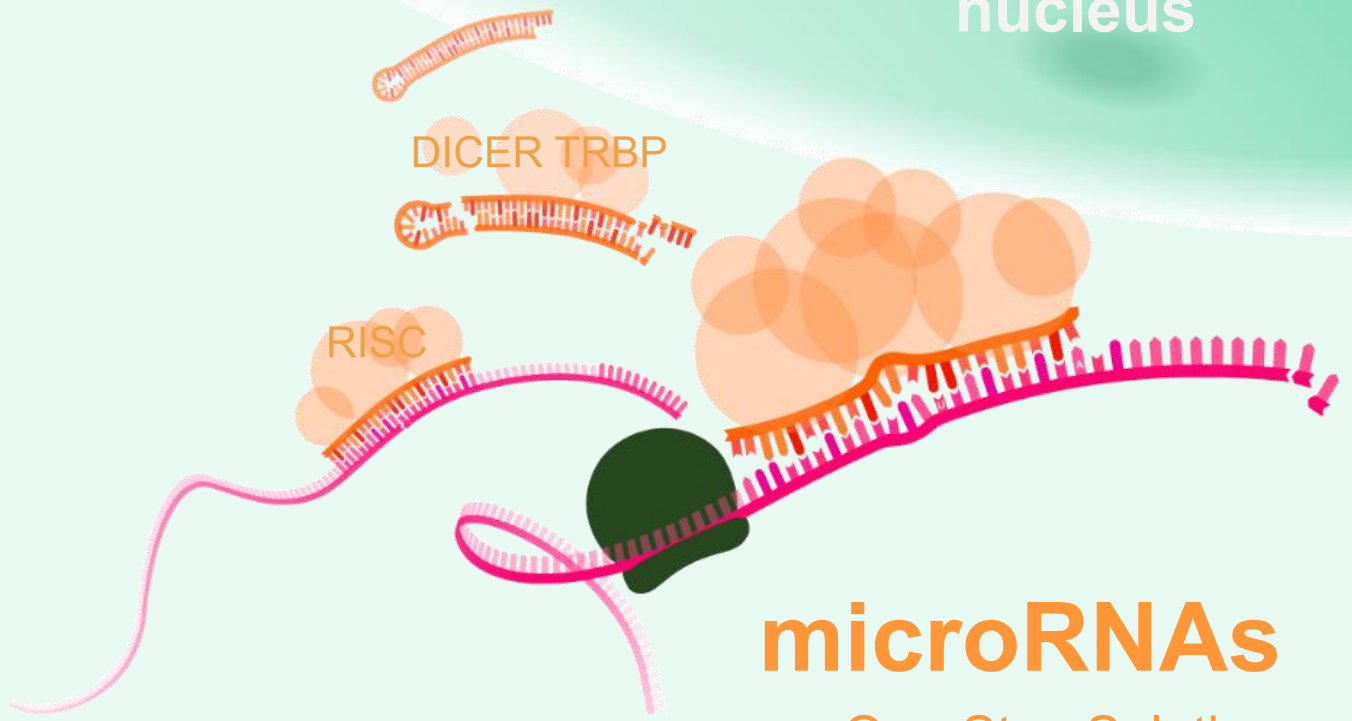


nucleus



## microRNAs

One-Stop Solution



# IntegrateRNA

A Division of Creative Biogene

---Your Global Partner for microRNA Research

**45-1 Ramsey Road, Shirley, NY 11967, USA**

**Tel: 1-631-626-9181 (USA)**

**Tel: 49-69-2013-4726(Europe)**

**Fax: 1-631-614-7828**

**Email: [info@creative-biogene.org](mailto:info@creative-biogene.org)**



# microRNA Research Services

---Accelerate your research with **IntegrateRNA's** supreme and efficient custom services

**IntegrateRNA**, a branch of Creative Biogene, is an innovative biotechnology company whose mission is to develop unique technologies that provide global scientists with high-quality products and satisfactory services to facilitate the investigation of life science researches.

In recent years, miRNAs have been linked to many human diseases and are being pursued as clinical diagnostics and as therapeutic targets. We have extensive experience in microRNA research. Our scientific experts understand your demands, and we are ready to cooperate with you to ensure the success of your microRNA research.

## ***Choose our service to meet your needs***

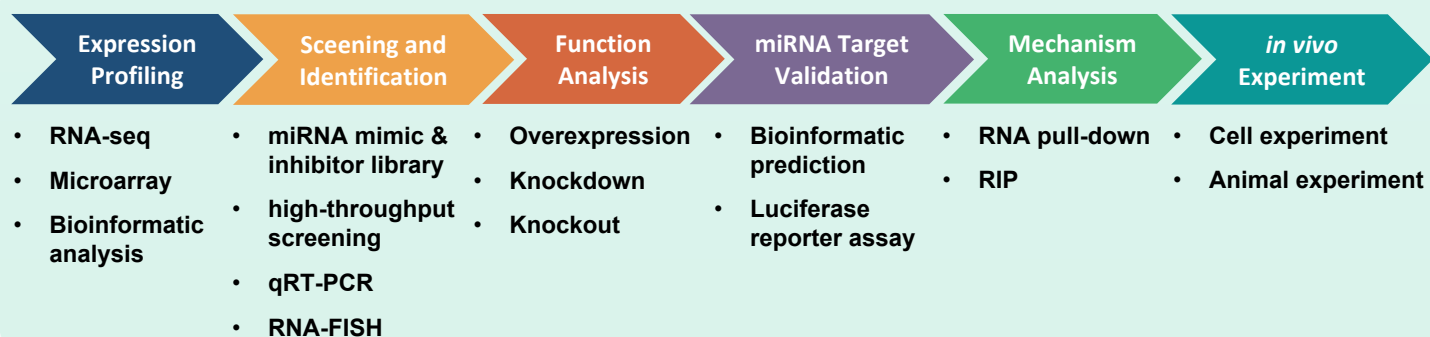
- ✓ *miRNA Expression Profiling*
- ✓ *miRNA Screening and Identification*
- ✓ *miRNA Function Analysis*
- ✓ *miRNA Target Prediction and Validation*
- ✓ *miRNA Mechanism Analysis*
- ✓ *in vivo miRNA Experiment*





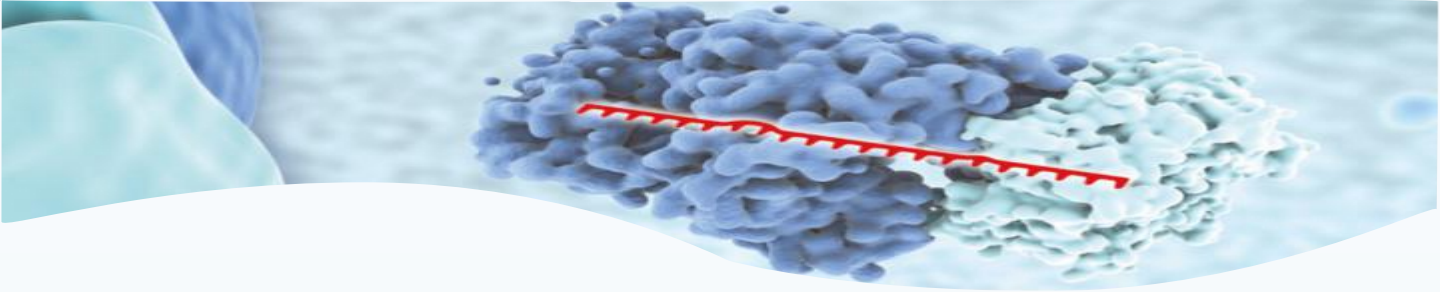
## One-stop Solution for microRNA Research

**IntegrateRNA** provide a complete set of customized services for microRNA research to resolve potential issues quickly and efficiently.



We provide customized, one-stop solution, from miRNA discovery, confirmation, functional analysis, target validation to mechanism analysis. Whether you are interest in *miRNA biomarkers discovery, miRNA-based disease pathogenesis, miRNA-based drug development, in vivo miRNA experiment or other miRNA-related research*, comprehensive supports by **IntegrateRNA** will be provided to assist you for troubleshooting and data analysis.



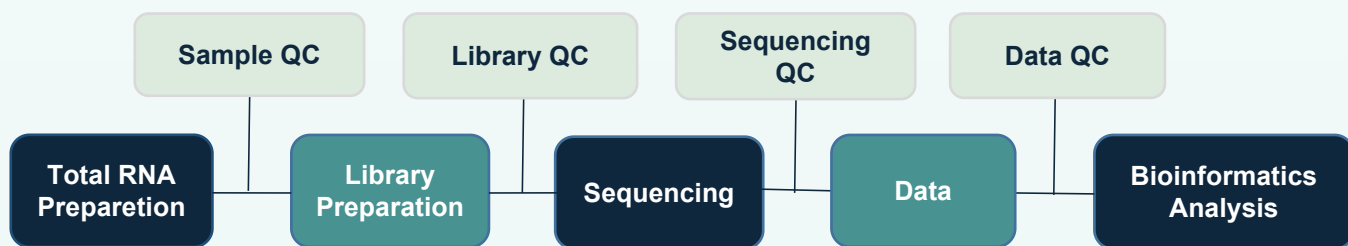


# microRNA Expression profiling

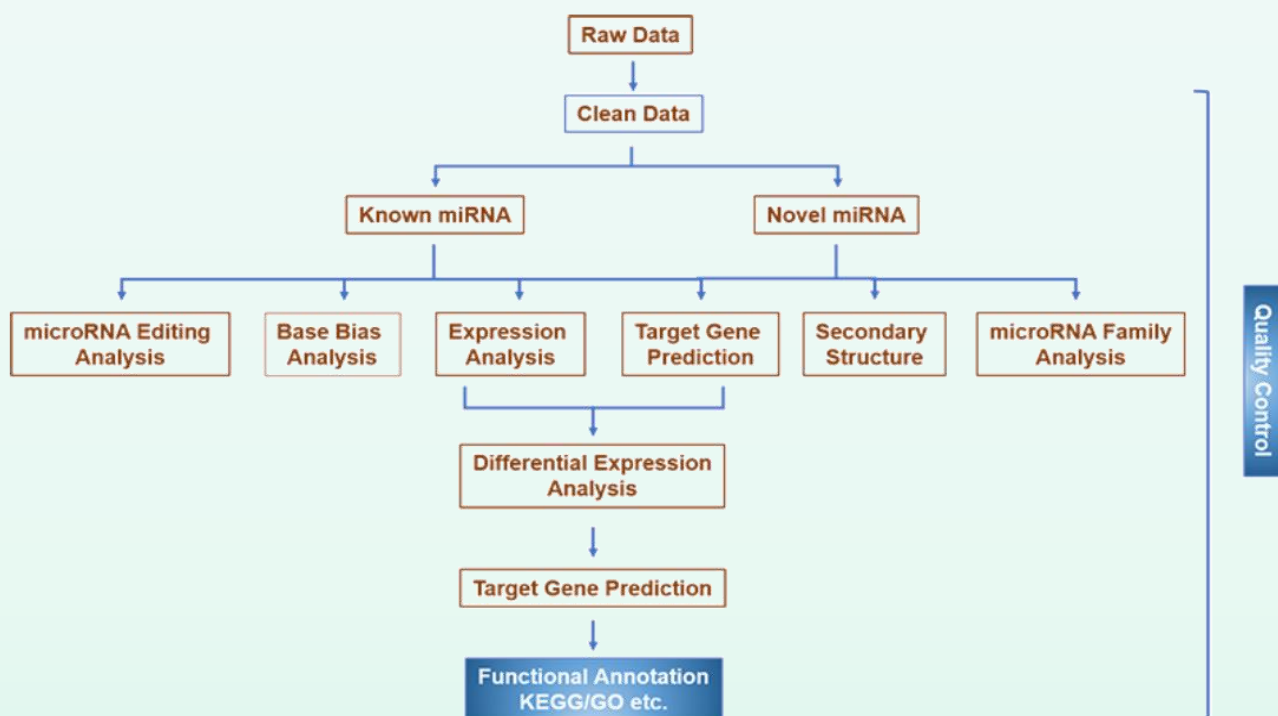
## ✓ MicroRNA Sequencing Service

To support your research, we offer complete microRNA sequencing services including RNA preparation and quality control, library construction, sequencing, and comprehensive data analysis, producing the results needed to rapidly advance biological and biomedical research.

### Workflow of miRNA sequencing



### Bioinformatic Analysis Pipeline



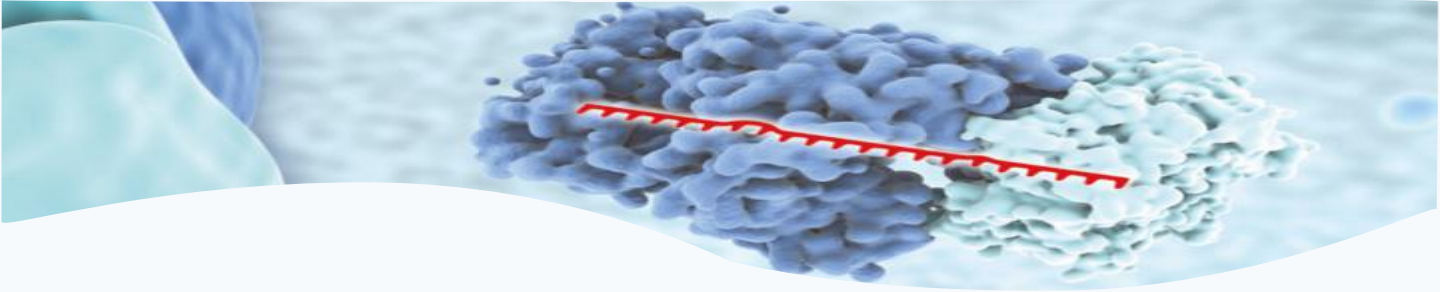
### Sample Requirements

Sample type: Total RNA

Sample concentration  $\geq 200$  ng/ $\mu$ l

Starting amount of total RNA  $\geq 5$   $\mu$ g

Sample purity: OD260/280 = 1.8~2.2



## microRNA Expression profiling

### ✓ Microarray-based miRNA Expression Profiling

We provide standard and custom microarrays for all mature miRNAs of all species available in miRBase V21.0 database.

| Microarray                            | Formats       | Detected miRNA   | Database  |
|---------------------------------------|---------------|--|---|
| Agilent Human miRNA Microarray V21.0  | 8*60K         | 2,549 miRNA  | Sanger miRBase V21.0                                  |
| Agilent Mouse miRNA Microarray V21.0  | 8*60K         | 1,881 miRNA  | Sanger miRBase V21.0                                  |
| Agilent Rat miRNA Microarray V21.0    | 8*15K         | 759 miRNA  | Sanger miRBase V21.0                                  |
| Agilent Custom miRNA Microarray V21.0 | Inquire       | Inquire  | Sanger miRBase V22.0                                  |
| Affymetrix GeneChip miRNA V4.0        | 2/6/30 arrays | 30,424 mature miRNA (all organisms), 1,996 snoRNA and scaRNA | Sanger miRBase V20.0, Ensembl, snoRNAbase, mirTarbase |

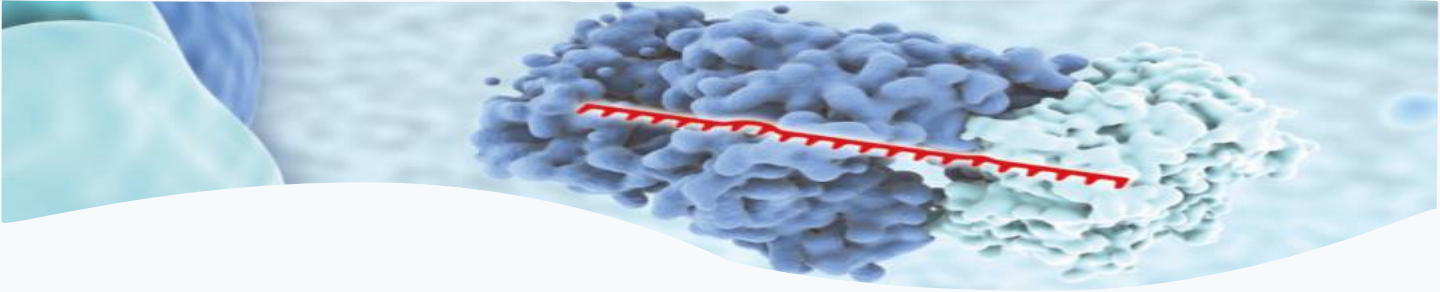
### Features and Benefits

- Comprehensive coverage: designed to interrogate all mature miRNA sequences in miRBase V21.0.
- Easily correlate miRNA results: analysis files contain host gene ID, predicted and validated miRNA target genes, and clustered miRNA information
- Handling various research and clinical sample types: including tissue, cell, FFPE, urine, blood, plasma, exosome samples.

### Applications

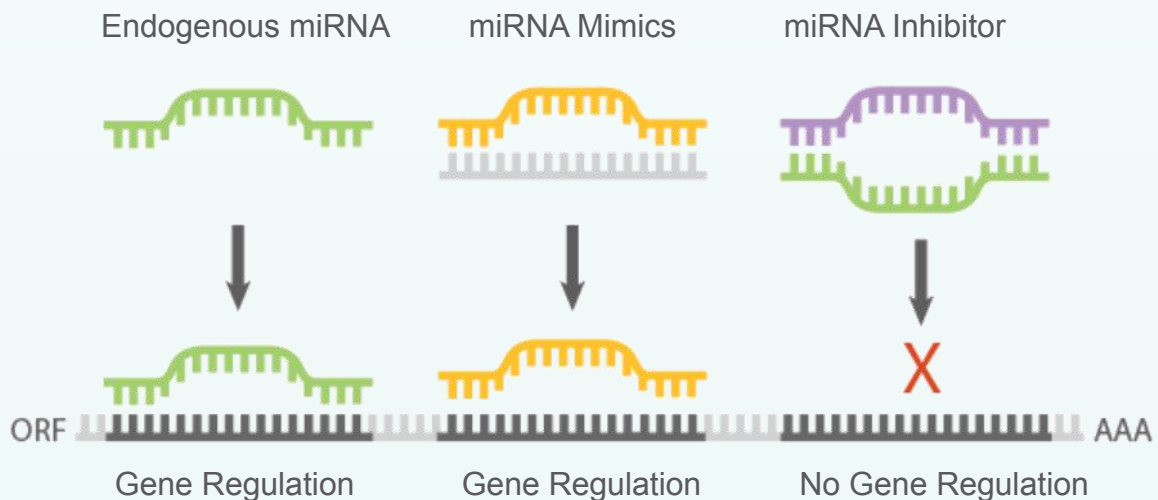
- Conducting a genome-wide analysis of miRNA expression of normal and disease samples
- Discovering the potential biomarkers and therapeutic targets
- Identifying the miRNA involved in the pathogenesis of human cancers





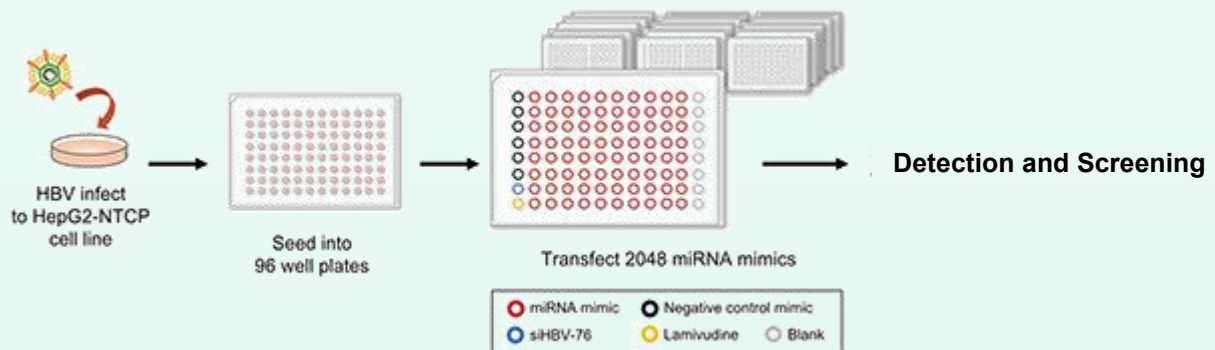
## microRNA Screening and Identification

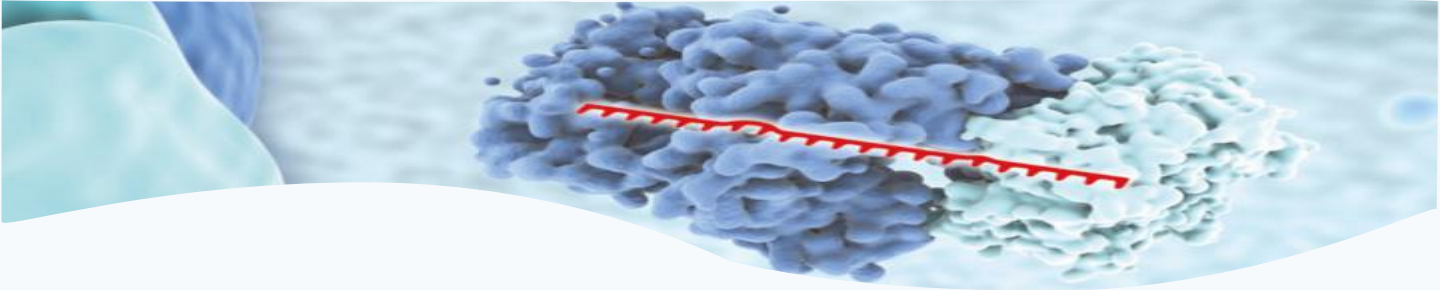
### ✓ microRNA Inhibitor & Mimic Library



We provide customized library contain microRNA mimic & inhibitor for every *human*, *mouse*, and *rat* miRNAs in **miRBase database V21.0** packaged in 96- or 384-well plates for high-throughput phenotypic screening applications.

### ✓ High-throughput Phenotypic Screening





# microRNA Screeing and Identification

## ✓ miRNA qPCR Array Service

RNA Sample Preparation



Reverse transcription

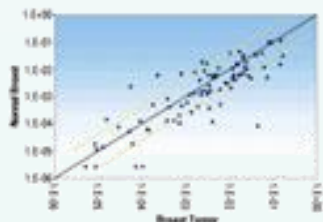
cDNA synthesis



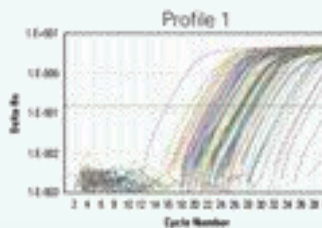
customized miRNA qPCR Array



Data Analysis



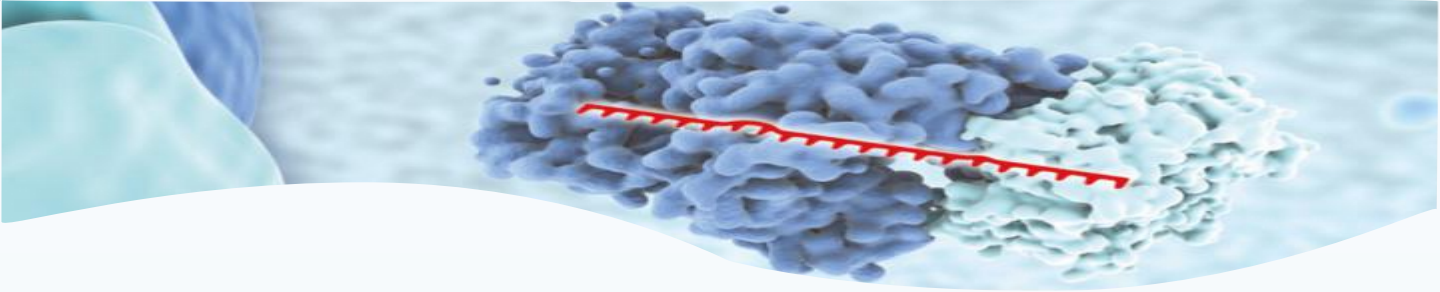
Real-time qPCR



Our qPCR array services are designed for expression analysis of **cancer-related**, **pathway-related** and **whole genome miRNAs**, and can be applied in biomarker discovery and therapy development research of miRNA. We also provide customized miRNA qPCR Array Service.

### Key Advantages

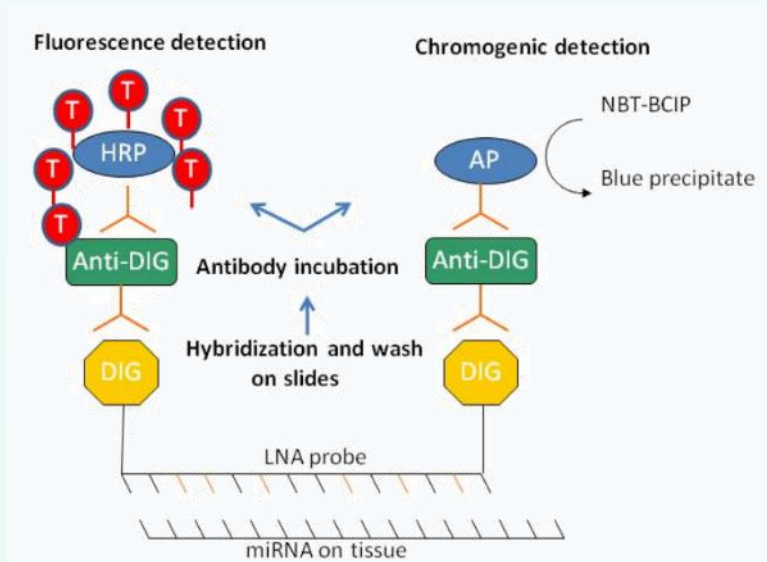
- **Proven primers** – each primer is designed using a proprietary algorithm and has been experimentally verified.
- **Flexible array design** – offer a variety of layouts to choose from, including 96-well and 384-well plates.
- **Specificity** – ability to distinguish miRNAs with single nucleotide mismatches.
- **Extensive linearity** – simultaneous detection of miRNAs at various expression levels.
- **Reproducible** – high reproducibility of inter-array and intra-array replication ( $R^2 > 0.99$ ).
- **Whole-genome coverage**, prearranged groups or customized groups.



## microRNA Scening and Identification

### ✓ microRNA *In Situ* Hybridization Service

**IntegrateRNA** has extensive experience with microRNA ISH using our or client' probes. Besides, we offer in situ hybridization screening of your microRNAs using enhanced microRNA detection probes. Our service allows the visualization of target miRNAs in specific cells in the spatial context and aid in studying the lowly expressed miRNA populations to assess the physiological function of miRNA.

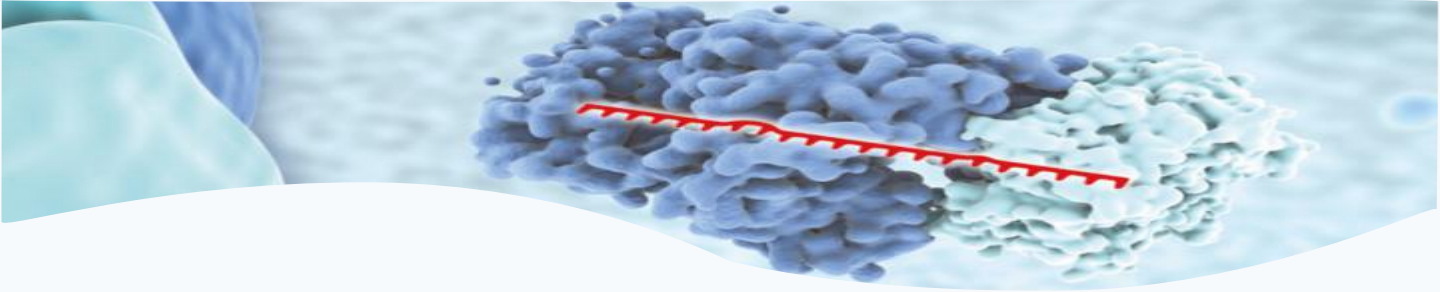


### Principle of miRNA *in situ* hybridization

#### Customer offers

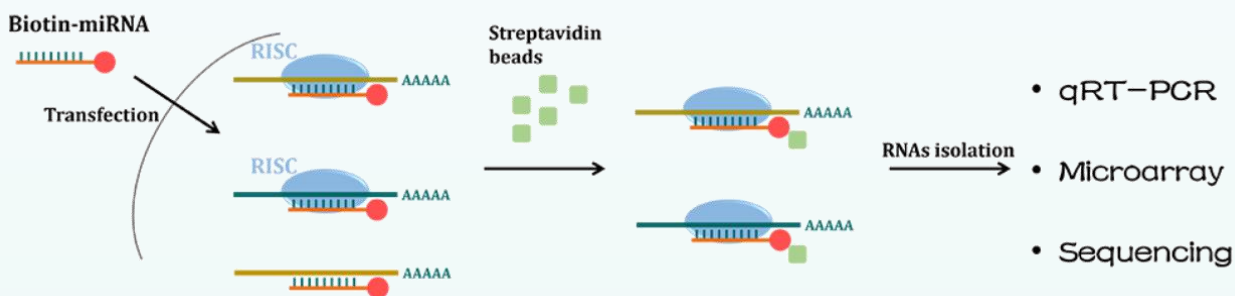
- Fresh or fixed tissue sample
- Fresh or fixed cell sample
- Paraffin section, frozen section or cell smear
- miRNA information





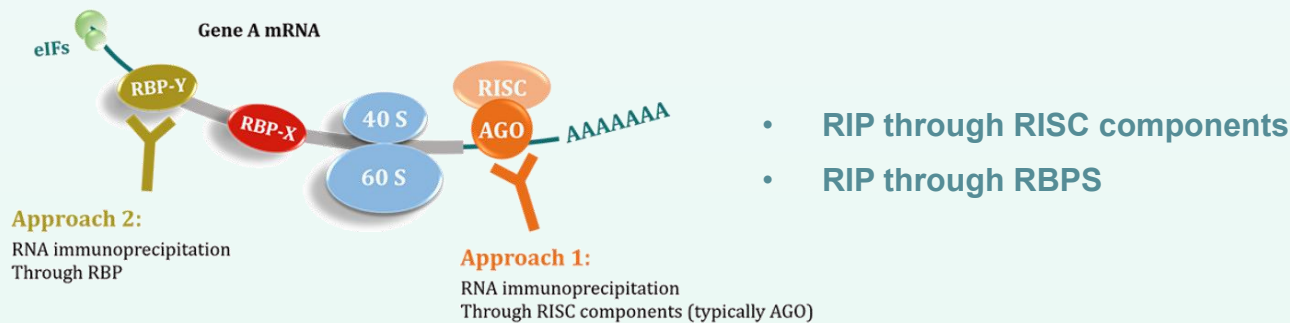
# microRNA Mechanism Analysis

## ✓ microRNA Pull-down Assay

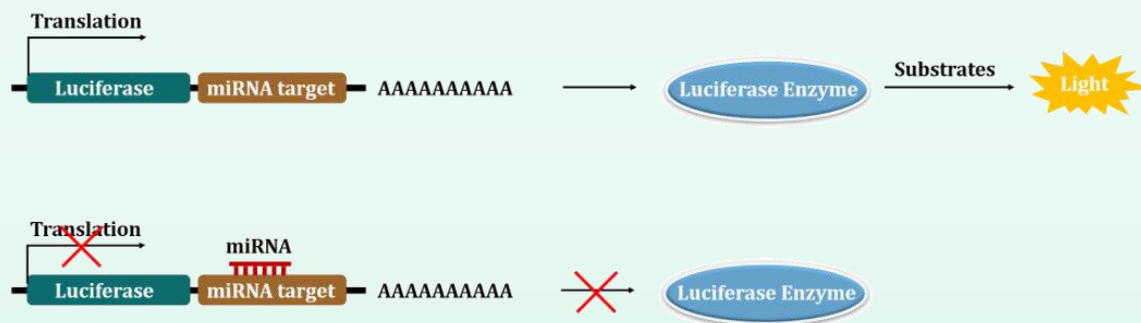


**IntegrateRNA** recently introduced the latest optimized miRNA pull-down strategy to help you identify the direct interactions between miRNAs and their target mRNAs in a faster and more accurate way.

## ✓ microRNA Immunoprecipitation Assay



## ✓ microRNA Luciferase Reporter Assay



We offer comprehensive solution, including miRNA target prediction, vector construction, cell transfection, luciferase activity detection and report delivery.



## **IntegrateRNA- Your best Choice for microRNA Research Services! Contact us now!**

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**microRNAs**

