MiRXES

TO KNOW IS TO ACT
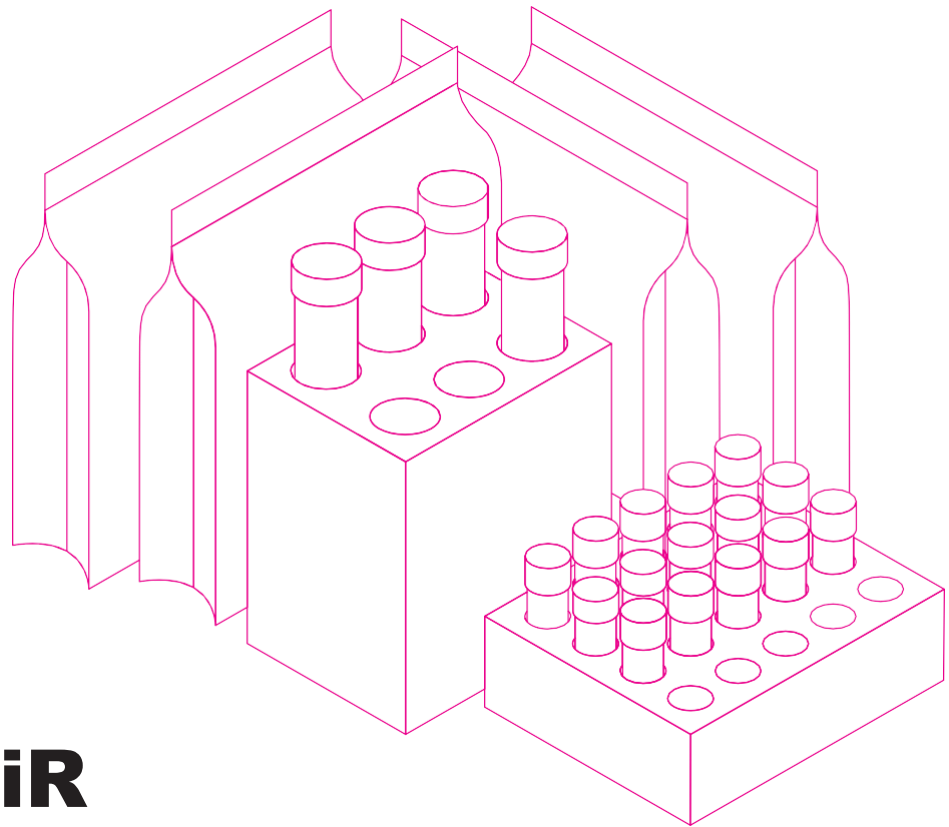
ID3EAL™ PanoramiR microRNA Knowledge Panel

Discover and validate miRNA expression profiles in a single step.

Thomas Scientific

ISO 9001:2015 CERTIFIED COMPANY

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Connect With Us:

ID3EAL™ PanoramiR microRNA Knowledge Panel

Meaningful insights with minimal resource investments.

Thomas # CHM02D121

The ID3EAL PanoramiR panel is an effective approach to screening for miRNAs important in biological processes, disease mechanisms, or biomarker discovery for disease diagnosis and subtyping.

PanoramiR targets 376 miRNAs expertly curated from miRBase 22, HMDD 3.2 and TCGA. This is further cross-referenced with high-impact publications and in-house research data.

Achieve More with Less

✓ **Expertly curated disease-relevant** miRNA panel generates meaningful insights.

✓ **Highly sensitive and robust** ID3EAL™ RT-qPCR based technology enables detection of lowly expressed miRNAs with minimal sample input.

✓ **Validated** multiplexed primer pools prevents resource wastage.

✓ Relevance to **over 20 diseases** including cancers, dementias, cardiovascular disease, liver diseases and more.

✓ Relevance to **various sample types** including plasma, serum and solid tissues.

Disease Categories

Category	Examples	microRNA Targets
Cardiovascular	Cardiovascular Disease (e.g. stroke, coronary artery diseases, etc)	140
Metabolic	Diabetes, Liver Cancer	358
Neurological	Alzheimer's Disease, Dementia, Depression, CNS Cancer	114
Respiratory	Lung Disease, Lung Cancer	165
Urological	Kidney Disease, Bladder Cancer	51
Reproductive	Cervical Cancer, Prostrate Cancer	319
Gastrointestinal	Stomach Cancer, Colorectal Cancer	224
Hematological	Leukemia, Lymphoma	150

References
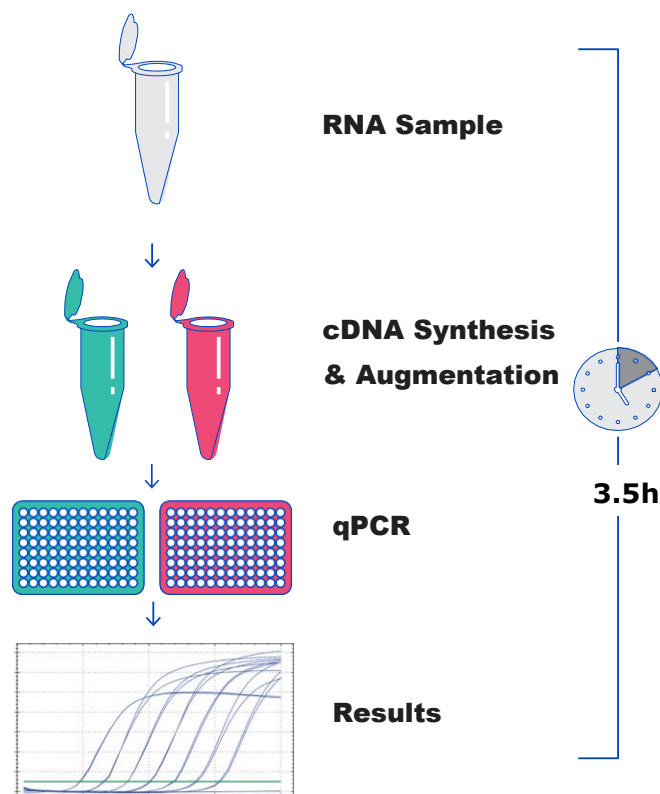Key principles of miRNA involvement in human diseases. Discoveries (Craiova). 2014 Oct-Dec; 2(4): e34.

Publishable Results In Hours

Fast: RNA-to Ct in 2 or 3.5 hours

The proprietary ID3EAL™ RT-qPCR technology enables results from RNA samples in just 2 hours or up to 3.5 hours with the pre-amplification step to enhance detection with limiting amounts of starting material.
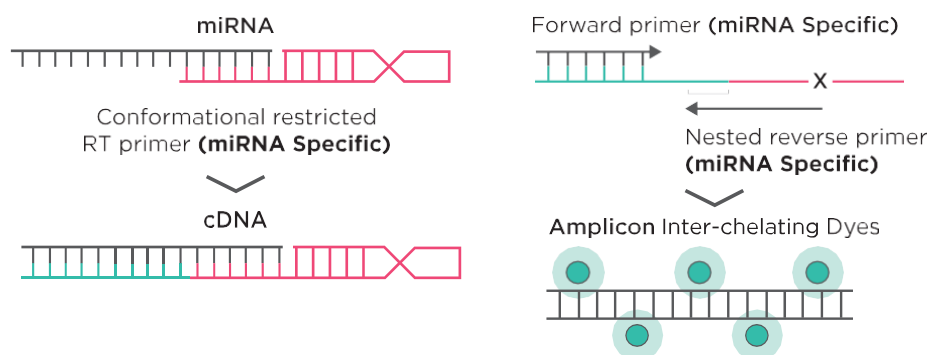
Convenient: Great User Experience

- ✔ Ready-to-use qPCR plate with pre-spotted primers

- ✔ Reagents pre-aliquoted into experimentally relevant proportions

- ✔ Wet-lab validated assays

- ✔ Spike-in RNAs included

- ✔ Easy-to-interpret fold-change data from data analysis excel template.

RNA Sample

cDNA Synthesis & Augmentation

qPCR

Results

3.5h

Ultrasensitive and Robust miRNA Detection

Achieve unparalleled sensitivity and specificity with wet-lab validated sequence-specific ID3EAL™ RT and qPCR forward and reverse primers.

miRNA

Conformational restricted
RT primer **(miRNA Specific)**

cDNA

Forward primer **(miRNA Specific)**

Nested reverse primer
(miRNA Specific)

Amplicon Inter-chelating Dyes

ID3EAL™ assay primers are optimized by MiRXES' proprietary algorithm and wet-lab validated with synthetic miRNA templates and RNA from biological samples. Manufactured in ISO 13485 facility.

ID3EAL™ miRNA Knowledge Panel Profiling Service

The ID3EAL™ miRNA Knowledge Panel Profiling Service enables researchers to overcome time, resource and expertise challenges and generate high quality miRNA data for publishing in high impact journals.

→ Delivering Your microRNA Discoveries

ID3EAL™ miRNA Knowledge Panel Profiling Service

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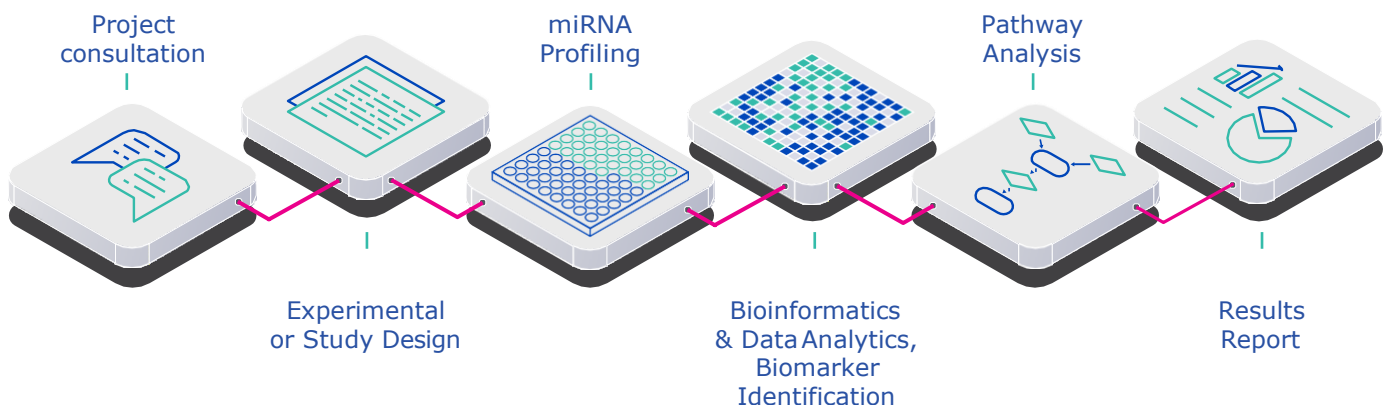
- ✔ Experienced Scientists with Expert Know-How

- ✔ High Quality, Reliable and Reproducible Data

- ✔ Wide Dynamic Coverage of Over 7 logs

- ✔ Stringent Quality Controls

- ✔ Low Sample Input Requirement

- ✔ Publication-Ready Bioinformatics Analyses

- ✔ Data Confidentiality

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i **Proprietary pre-analytical specimen quality check addresses largest source of variability in laboratory testing.**

From Sample to Publication-Ready Results

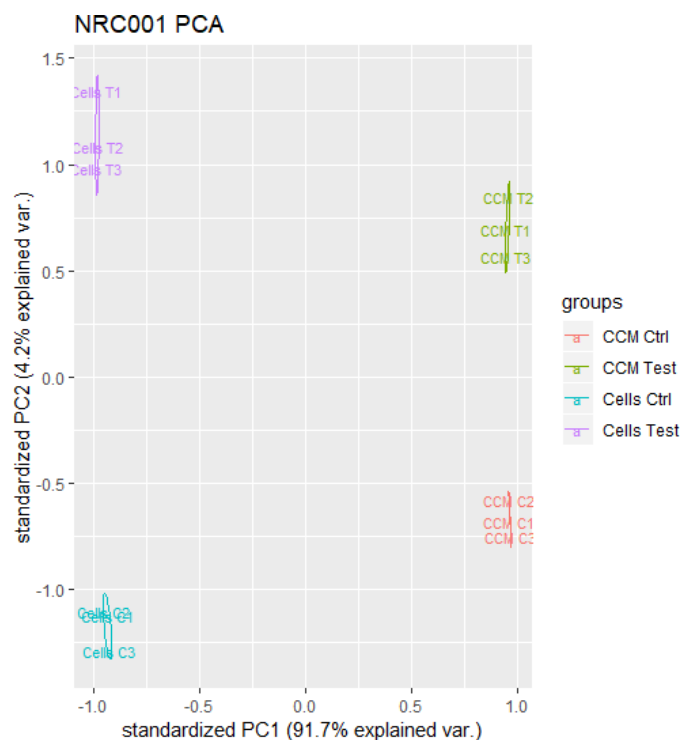Researchers may opt for selected service modules or engage our complete service workflow.

Project consultation

miRNA Profiling

Pathway Analysis

Experimental or Study Design

Bioinformatics & Data Analytics, Biomarker Identification

Results Report

miRNA Expression Analyses by a MiRXES Partner Service Lab* using the ID3EAL™ miRNA Knowledge Panels.

PCA analysis of miRNA profiles show stratification into distinct sample types and groups

miRNA expression in cultured HCT116 cells and their spent cell culture media (CCM). Principle component analysis (PCA) of miRNA expression data showed clustering of biological replicates of the respective sample types and groups.
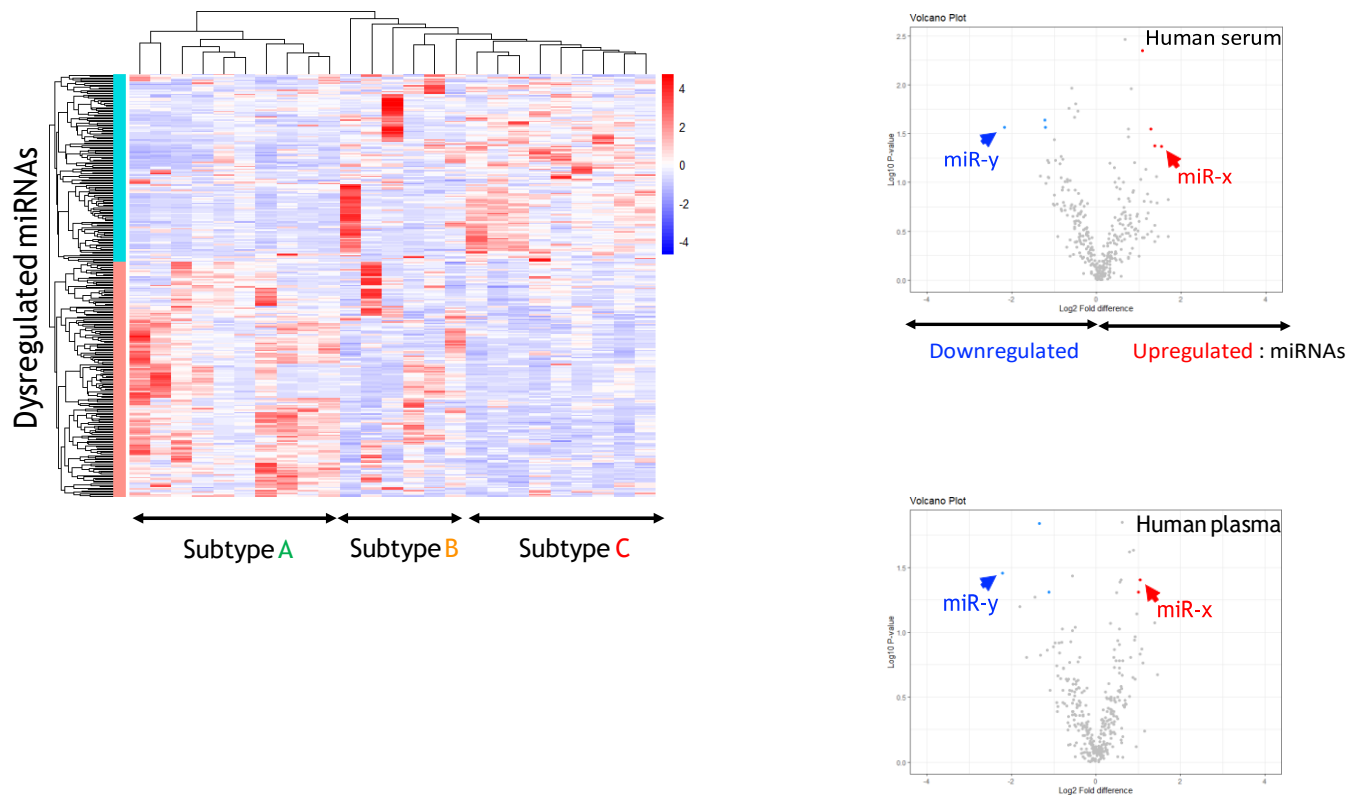
*The experiments and analyses were conducted by a MiRXES partner service lab, the National University of Singapore Yong Loo Lin School of Medicine ncRNA Core.

NRC001 PCA

standardized PC2 (4.2% explained var.)

standardized PC1 (91.7% explained var.)

Cells T1
Cells T2
Cells T3
CCM T2
CCM T1
CCM T3
CCM C2
CCM C1
CCM C3
Cells C1
Cells C3

groups
CCM Ctrl
CCM Test
Cells Ctrl
Cells Test

Clustering and Volcano plot analyses of blood cancer subtypes by miRNA profiling on serum or platelet-poor plasma (PPP) samples

Unsupervised hierarchical clustering of miRNA expression data stratified uterine cancer samples into various molecular subtypes. Volcano plots of miRNA expression in serum and PPP samples from the same patient revealed identical dysregulated miRNAs.

ID3EAL™ miRNA Profiling Panels

ParanomiR Panel: 376 disease-associated miRNAs selected from expert curation of miRNA databases, published literature and in-house research data.

Biofluid Panel: 176 miRNAs selected from in-house research of more than 20,000 human serum, plasma and urine specimens in both healthy and pathological conditions.

Cancer Panel: 352 miRNAs strongly associated with various cancer types and which regulate key onco- and tumor suppressor genes and pathways.

Standard Analyses

• Raw Data Cleaning • Normalization •
Fold-change and p-values • Clustering,
Principal Component Analysis • Volcano
Plots • Gene Ontology on request

People, Experiences & Expertise

MiRXES scientists and collaborators from top academic and medical institutes have evaluated over 50,000 clinical samples in 30 disease areas and applications using the proprietary ID3EAL™ technology.

Ordering Information:

Product	Catalogue No.
ID3EAL PanoramiR miRNA Knowledge Panel	CHM02D121
Panel Profilining Service - ID3EAL miRNA Knowledge Panel	Please enquire

**Unparalleled Experience
in miRNA Profiling**

More than
50,000

Profiles
Completed
Worldwide

More than
200,000

Profiles
Planned
Worldwide

More than
30+

Major
Clinical and
Pharma
Partners

More than
10+

Cancer
Types
Profiled
Worldwide

More than
10+

Major
Diseases
Profiled in
Humans

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