TRIzol® **IN**

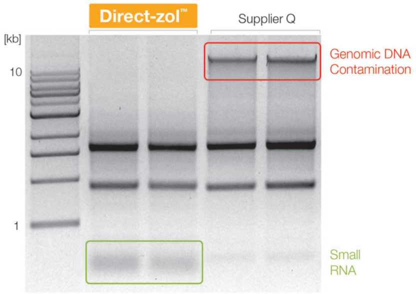
Direct-zol™ RNA Purification

RNA **OUT**

Patented technology:
Mix sample in TRIzol®, TRI Reagent®, or similar.
Add ethanol & load into the Zymo-Spin™ column.
No phase separation, no precipitation, no RNA loss.

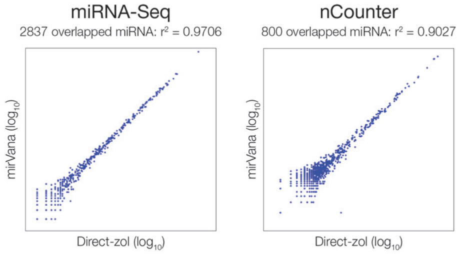
7 minutes from TRIzol® to purified RNA

High-quality small & large RNA



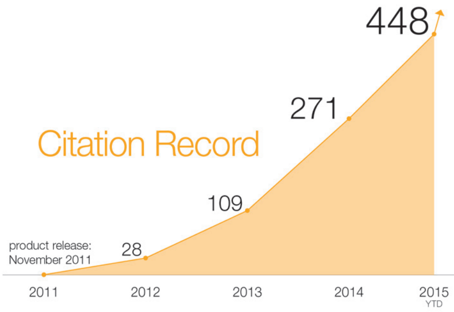
High-quality small and large RNAs are effectively recovered using the Direct-zol™ kit. RNA is DNA-free.

Non-biased miRNA recovery



The data show RNA purified from TRIzol® samples using the Direct-zol™ RNA MiniPrep compared to an unbiased method (mirVana™, Ambion). Micro-RNA analysis was performed using miRNA-Seq (MiSeq®, Illumina) and a direct hybridization assay (nCounter®, Nanostring).

Highly cited



Samples available at **zymoresearch.com/direct-zol** or call **(949) 679-1190**

Product	**Cat. No.**	**Size**
new Direct-zol™ RNA MiniPrep Plus	R2070, R2071* R2072, R2073*	50 Preps. (≤100 µg RNA) 200 Preps. (≤100 µg RNA)
Direct-zol™ RNA MiniPrep	R2050, R2051* R2052, R2053*	50 Preps. (≤50 µg RNA) 200 Preps. (≤50 µg RNA)
new Direct-zol™ RNA MicroPrep	R2060, R2061* R2062, R2063*	50 Preps. (≤10 µg RNA) 200 Preps. (≤10 µg RNA)

96-well spin plate & MagBead formats also available

* = Supplied with TRI Reagent®

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RNA Purification
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U.S. Patent No. 9,051,563 B2 and other pending patents. Direct-zol™ is a trademark of Zymo Research Corp.

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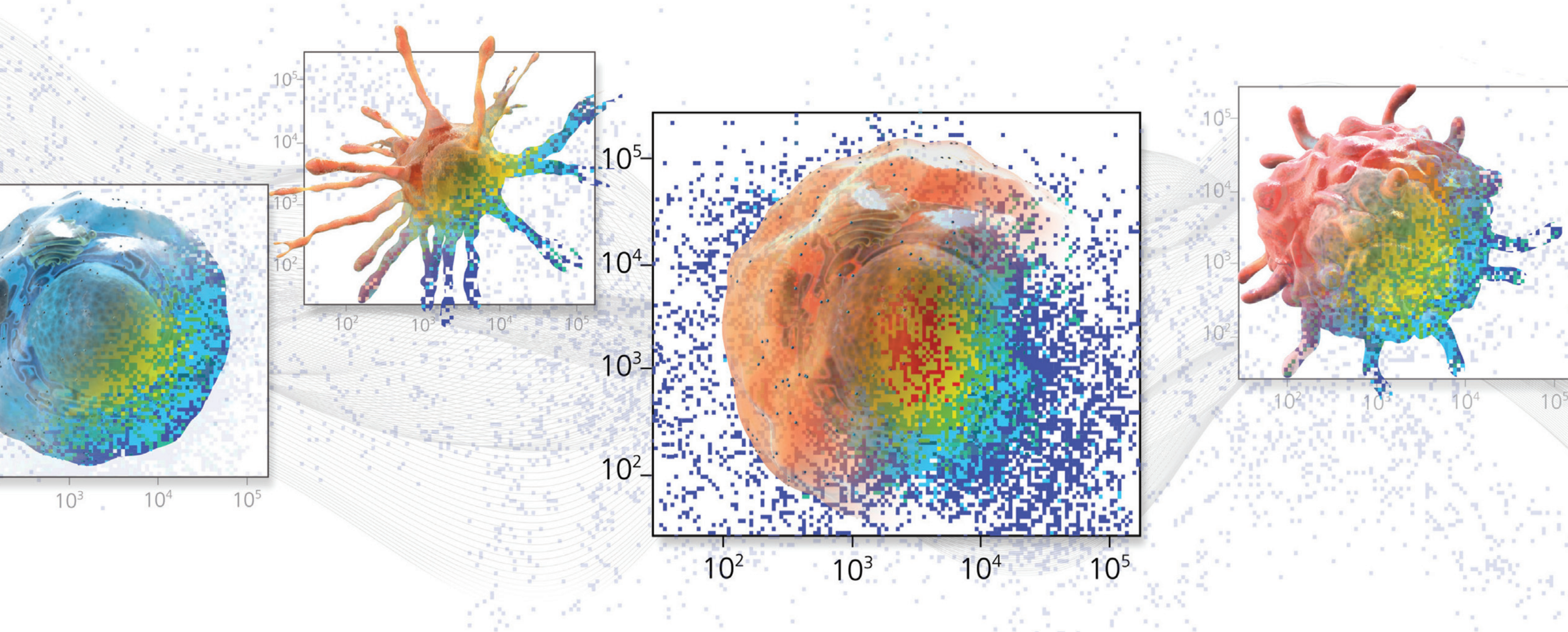

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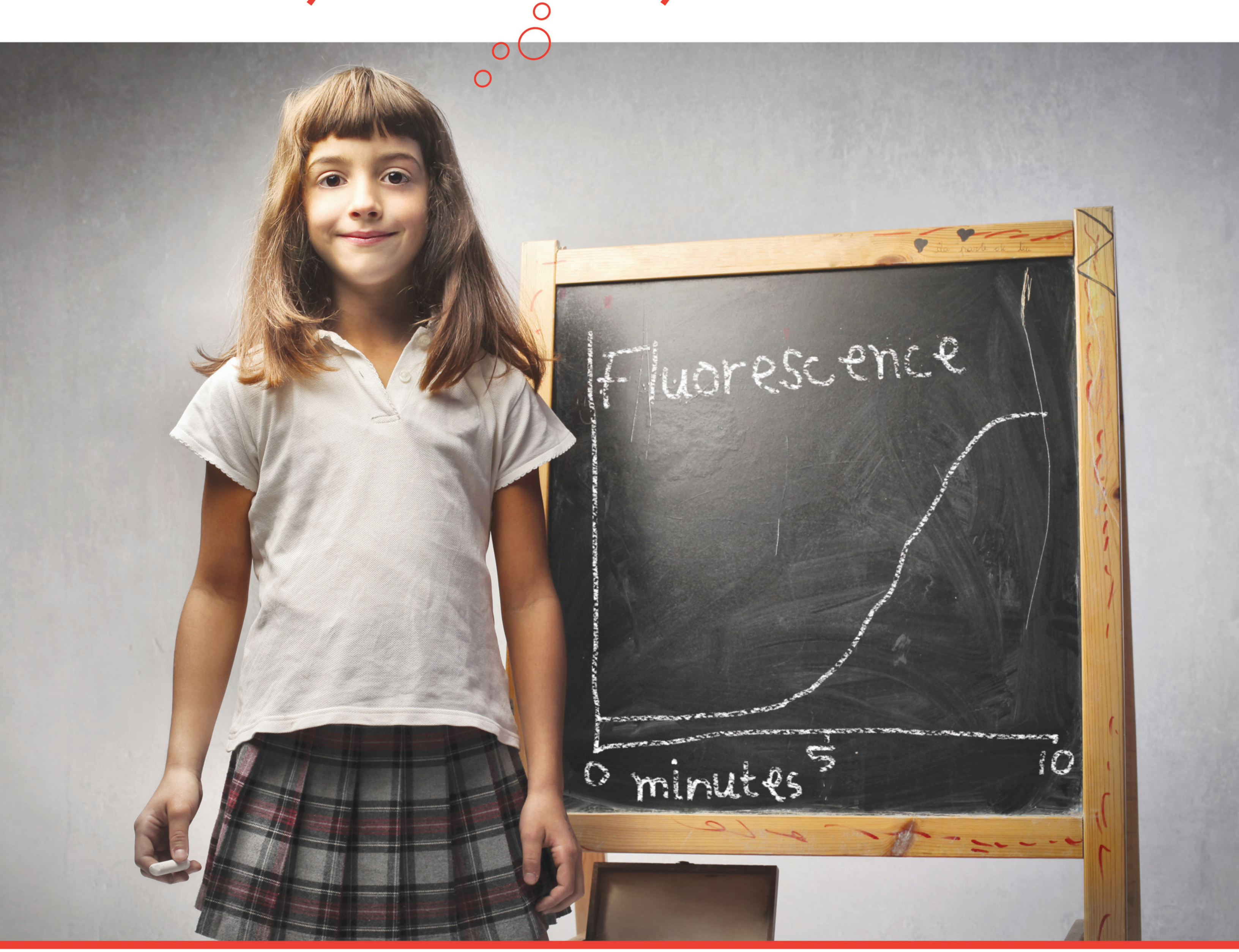

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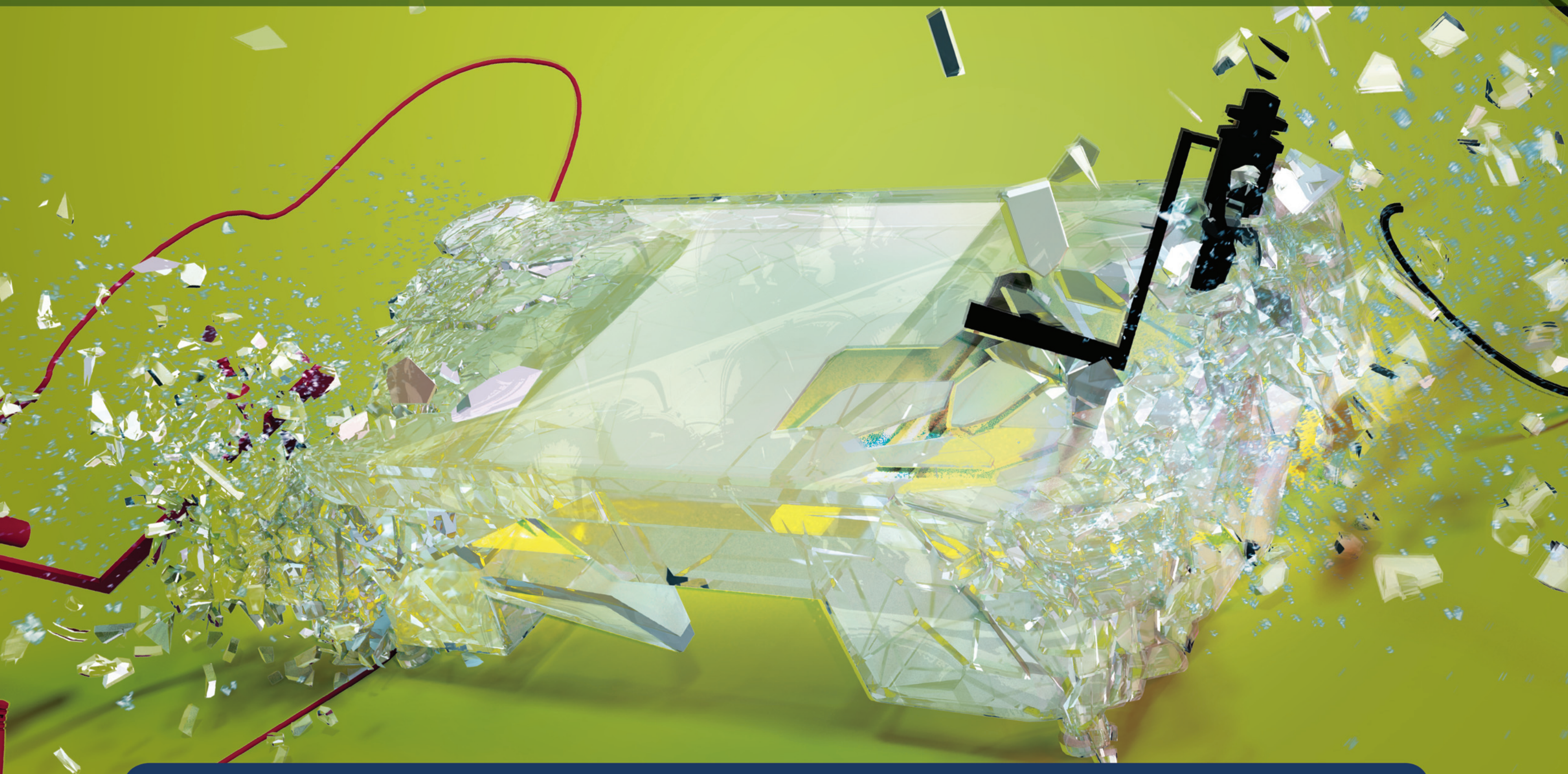

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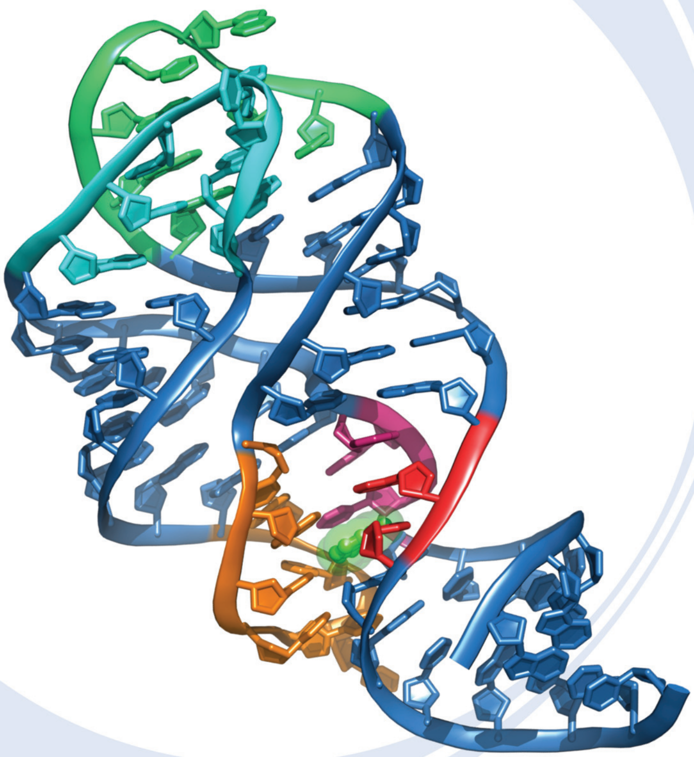

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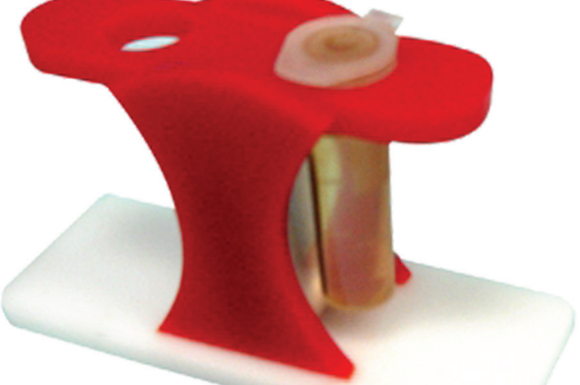

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2016 Keystone Symposia RNA Conferences

Small RNA Silencing: Little Guides, Big Biology
Scientific Organizers: Phillip D. Zamore, Yukihide Tomari and Mihaela Zavolan
January 24–28, 2016 | Keystone Resort | Keystone, Colorado | USA
www.keystonesymposia.org/16A6
Deadlines: Discounted Registration – Nov 23, 2015

Plant Epigenetics: From Genotype to Phenotype
Scientific Organizers: Scott D. Michaels, Doris Wagner and Nathan M. Springer
February 15–19, 2016 | Sagebrush Inn & Suites | Taos, New Mexico | USA
www.keystonesymposia.org/16B1
Deadlines: Abstract – Nov 16, 2015; Discounted Registration – Dec 15, 2015

Noncoding RNAs in Health and Disease
Scientific Organizers: Ramin Shiekhattar and Roberto Bonasio
February 21–24, 2016 | Santa Fe Community Convention Center | Santa Fe, New Mexico | USA
www.keystonesymposia.org/16Q5
Deadlines: Abstract – Nov 18, 2015; Discounted Registration – Dec 18, 2015

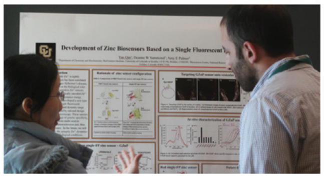
Chromatin and Epigenetics
Scientific Organizers: Luciano Di Croce and Yang Shi
March 20–24, 2016 | Whistler Conference Centre | Whistler, British Columbia | Canada
www.keystonesymposia.org/16C2
Deadlines: Discounted Abstract/Scholarship – Nov 18, 2015; Abstract – Dec 16, 2015; Discounted Registration – Jan 20, 2016

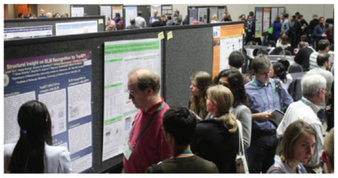
Heart Failure: Genetics, Genomics and Epigenetics
Scientific Organizers: Stuart A. Cook, Christine E. Seidman and Yigal M. Pinto
April 3–7, 2016 | Snowbird Resort | Snowbird, Utah | USA
www.keystonesymposia.org/16Z1
Deadlines: Discounted Abstract/Scholarship – Dec 3, 2015; Abstract – Jan 7, 2016; Discounted Registration – Feb 4, 2016

Epigenetic and Metabolic Regulation of Aging and Aging-Related Diseases
Scientific Organizers: Anne Brunet, David M. Sabatini and Shelley L. Berger
May 1–5, 2016 | Hilton Santa Fe Historic Plaza | Santa Fe, New Mexico | USA
www.keystonesymposia.org/16E1
Deadlines: Discounted Abstract/Scholarship – Jan 5, 2016; Abstract – Feb 2, 2016; Discounted Registration – Mar 1, 2016

Positive-Strand RNA Viruses
Scientific Organizers: Raul Andino and Peter D. Nagy
May 1–5, 2016 | Hyatt Regency Austin | Austin, Texas | USA
www.keystonesymposia.org/16N1
Deadlines: Discounted Abstract/Scholarship – Jan 6, 2016; Abstract – Feb 3, 2016; Discounted Registration – Mar 2, 2016

Nucleic Acid Sensing Pathways: Innate Immunity, Immunobiology and Therapeutics
Scientific Organizers: Thomas Tuschl, Veit Hornung and Karl-Peter Hopfner
May 8–12, 2016 | Maritim Hotel & Conference Center | Dresden | Germany
www.keystonesymposia.org/16E2
Deadlines: Discounted Abstract/Scholarship – Jan 7, 2016; Abstract – Feb 9, 2016; Discounted Registration – Mar 8, 2016





Submit an abstract to participate fully in the conference via poster presentation and possible selection for a short talk. Scholarships are available for graduate students and postdoctoral fellows. For full details on these and other related conferences, please visit www.keystonesymposia.org/meetings.

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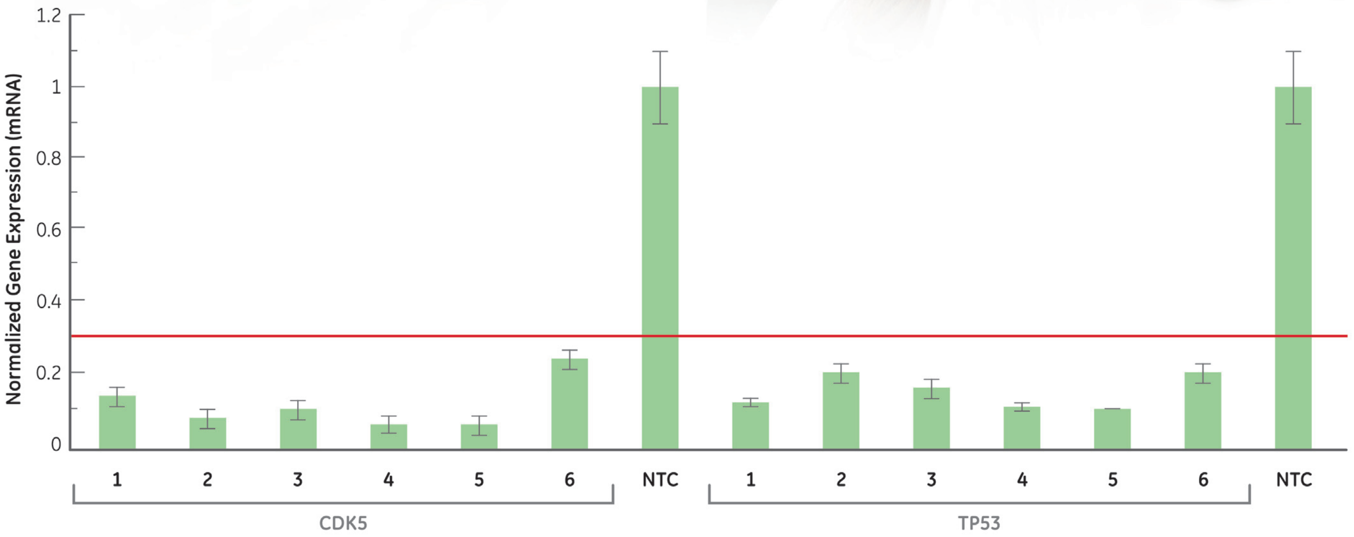

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SBI
System Biosciences

Sequence Exosome RNAs

Exosomes are 60 - 150 nm membrane signaling vesicles secreted by most cell types in vivo and in vitro. Exosomes are found in blood, urine, amniotic fluid, malignant ascite fluids and contain distinct subsets of microRNAs, mRNAs, lncRNAs and other ncRNAs. The identity and abundance of these RNAs has been shown to be a valuable approach to discover sequence signatures for the diagnosis and prognosis of disease. SBI's Exo-NGS service provides the exosome researcher with a comprehensive, expert service to isolate and identify exosome-associated RNA biomarkers.

Compare exo-RNA sequence profiles across patient samples.

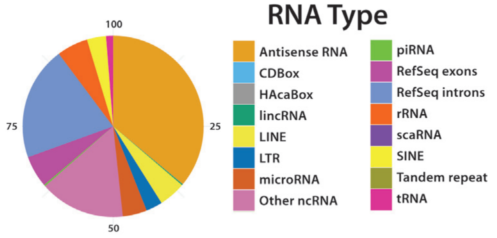
Building Exosome RNA NGS Libraries

- Exosomes isolated from samples
- Exo-RNAs purified with chromatography
- Illumina bar-codes added and amplified
- Library size-selection and PAGE purification
- High sensitivity library QC with Bioanalyzer
- Multiplexed HiSeq NGS for enhanced read depth

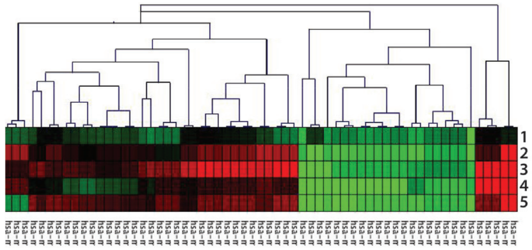
Primary Data Deliverables

- Raw sequencing reads in FASTA format
- Sequencing read quality values
- Analyzed Data – Small RNA Workflow
- Relative abundance of each RNA type
- Table of counts of mature microRNAs
- Differential expression heatmaps

RNA Type Charts



Expression Heatmaps



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