

*Sample preparation solutions for accurate and targeted genomic analysis of all samples, independent of type, quality and quantity!*

Whole Blood

FFPE

LCM

Frozen Sample

Tissue Biopsies

FNA

Serum

Skin

Sorted Cells



RNA-Seq  
aCGH DGE  
Metagenomics CHIP-Seq  
Targeted Deep Sequencing  
Expression Profiling  
RIP-Seq Q-PCR  
Sequencing

- Maintain accurate representation of underlying biology
- Reduced sample manipulation and simplified laboratory workflows
- Solutions for limited and challenging sample types
- High throughput applications for automation on a variety of platforms
- Reliable, reproducible results and more informative data sets
- ISO 13485 certified and cGMP manufacturing

Visit [www.biolynx.ca/nugen](http://www.biolynx.ca/nugen) for more information.

*Available in Canada from...*

MJS  
**BioLynx**  
INC.

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## Next-Gen Sequencing

NuGEN provides technology that encompasses a range of NGS applications including RNA-Seq, targeted resequencing of DNA and RNA, target capture, CHIP-Seq, and Methyl-Seq.

### cDNA Generation

A fast and simple whole transcriptome RNA amplification process for preparing amplified cDNA from a range of samples, including small (as low as 500 pg) or degraded (FFPE) total RNA samples for RNA-Seq applications.

### RNA-Seq Library Solutions

Complete end-to-end solutions for strand-specific RNA-Seq library construction using total RNA inputs as low as 10 pg and single cells, or for use with difficult samples such as human blood and FFPE.

### DNA Library Solutions

Library production solutions that can be used in a broad range of NGS applications starting with nanogram amounts of DNA. Applications include genomics, epigenomics, bisulfite sequencing, target capture, and single cell analysis.

### Target Enrichment

Prepare targeted enrichment panels for genomic regions of interest from a few kilobases up to 10 megabases with a broad range of samples and as little as 10 ng genomic DNA input.

## Microarray and qPCR

NuGEN's robust sample preparation solutions enable analysis on all leading microarray and qPCR platforms.

### cDNA Generation

Generate cDNA from a wide range of input amounts down to 500 pg of total RNA or from challenging samples.

### Fragmentation and Labeling

A fast method for preparing up to 5  $\mu$ g of fragmented, 3'-biotinylated cDNA suitable for GeneChip array analysis that does not require any purification steps.

## NuGEN Technologies

NuGEN's product range is founded on their novel and proprietary technologies.

### SPET (Single Primer Enrichment Technology)

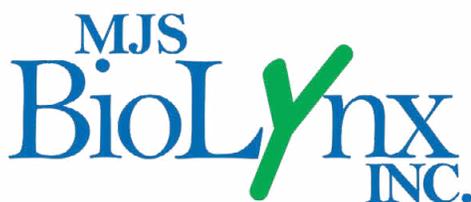
An approach for targeted resequencing of genomic DNA or cDNA for targeted RNA analysis and is suitable for a wide range of target sizes from a few kilobases to over 10 megabases. The method uses a single targeting probe that hybridizes to the target region and then extends through the region of interest. The approach eliminates the difficulty of designing specific PCR primer pairs and maintains high specificity of recovered target sequences in the final library. The application of the technique is highly flexible and suitable for use in the targeted analysis of a wide range of genomic markers including mutations, SNP's, indels, gene fusions, alternately spliced transcripts and copy number variants.

### InDA-C (Insert Dependent Adaptor Cleavage)

This method uses customized probes during library creation to target specific unwanted transcript species for exclusion in RNA-Seq libraries. Unlike methods that use hybridization mediated pull-down strategies to deplete unwanted RNA species prior to cDNA synthesis, the InDA-C method selectively targets and minimizes the presence of unwanted transcripts from finished libraries, avoiding potential off-target RNA cross-hybridization events that have been demonstrated to introduce bias. The InDA-C method is currently employed in the Ovation Complete Prokaryotic Library Systems to reduce ribosomal RNA transcripts and in the Ovation Human Blood RNA-Seq Library Systems to reduce both human globin and ribosomal RNA transcripts.

### SPIA (Single Primer Isothermal Amplification)

SPIA<sup>®</sup> technology is an elegant method for robust isothermal amplification of nucleic acids used in NuGEN's portfolio of whole genome and whole transcriptome amplification products. This simple, high-fidelity approach to amplification enables global genomic analysis of limited and/or compromised biological samples. Overcoming the challenges of sample quality and quantity enables researchers to analyze laser capture microdissections, fine-needle aspirates, flow-sorted cells, circulating tumor cells, embryonic structures and other precious clinical samples such as biopsies and formalin-fixed paraffin-embedded (FFPE) tissues.



*To Order or Inquire:*

**1-888-593-5969**

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