



BATJ

Bio Applied Technologies Joint, Inc.

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Next Generation Sequencing (NGS) Services

Fast · Reliable · High Quality



Ion PGM System



Illumina MiSeq System

- **Targeted Re-Sequencing**
- **Plasmids or PCR Fragments Sequencing (PPS)**
- **Metagenomics Sequencing (16S/18S/ITS)**
- **Antibody Repertoire Sequencing**
- **CRISPR Validation Sequencing**
- **Small RNA sequencing**
- **Whole Genome Sequencing (microorganisms)**
- **More coming soon...**



CONSTRUCT
LIBRARY



PREPARE
TEMPLATE

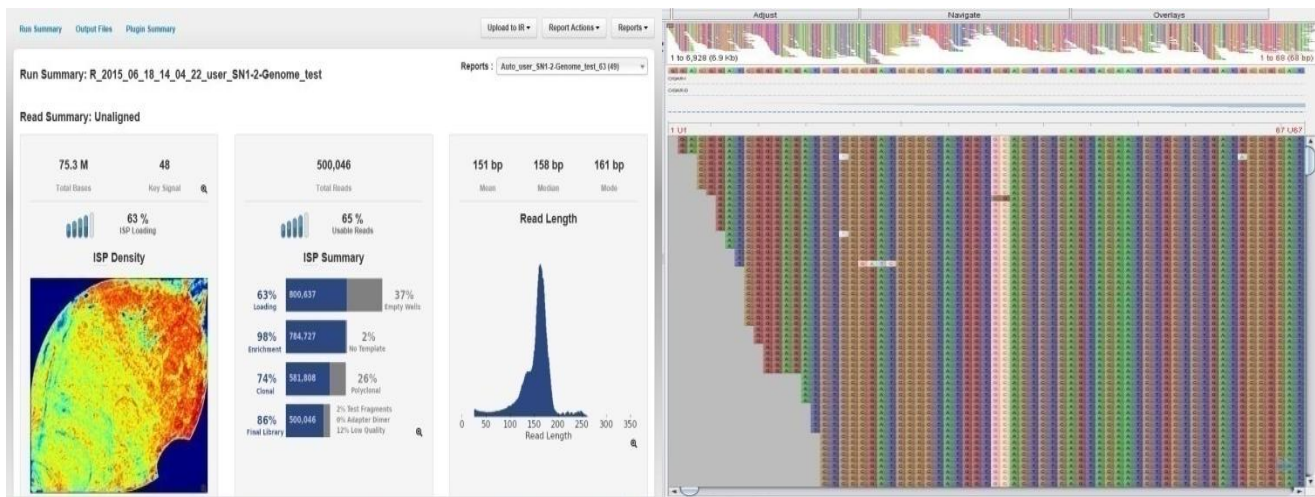


RUN
SEQUENCE



ANALYZE
DATA

Whole Plasmids and PCR Fragments Sequencing (PPS Service by NGS)



NGS PPS Service developed at BATJ

- Determine the complete sequence of circular or linear DNA molecules in a single run
- Ideal for unknown plasmid structure or whole plasmid identification after modification
- Suitable for a wide range of difficult templates (repetitive regions, strong secondary structures, GC rich...)
- No more sequencing walking primers to design and synthesis
- Reference sequence preferred, but not required
- Deep coverage of the whole DNA sequence (>100x)
- Up to 96 barcoded samples per chip run.
- Fast turnaround time (usually 3-5 business days)



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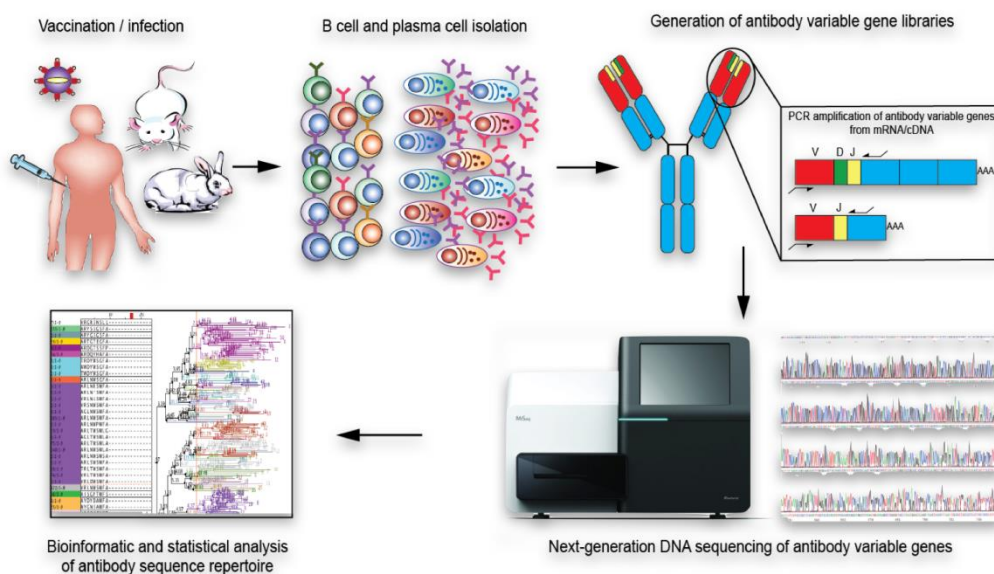
RUN
SEQUENCE



ANALYZE
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Ig-Seq Service by NGS

(High-Throughput Antibody Repertoire Sequencing)



- **Quantitative characterization of clonal diversity and distribution within immunoglobulin repertoire**
- **Comprehensive profiling of antigen- and disease-related alterations, as well as prioritizing of antibody drug candidates for further analysis**
- **Long read length (up to 500 bp)**
- **Deep coverage of Ig repertoire: up to 1 million CDR3/run**
- **Fast turnaround time: ~3-5 business days**



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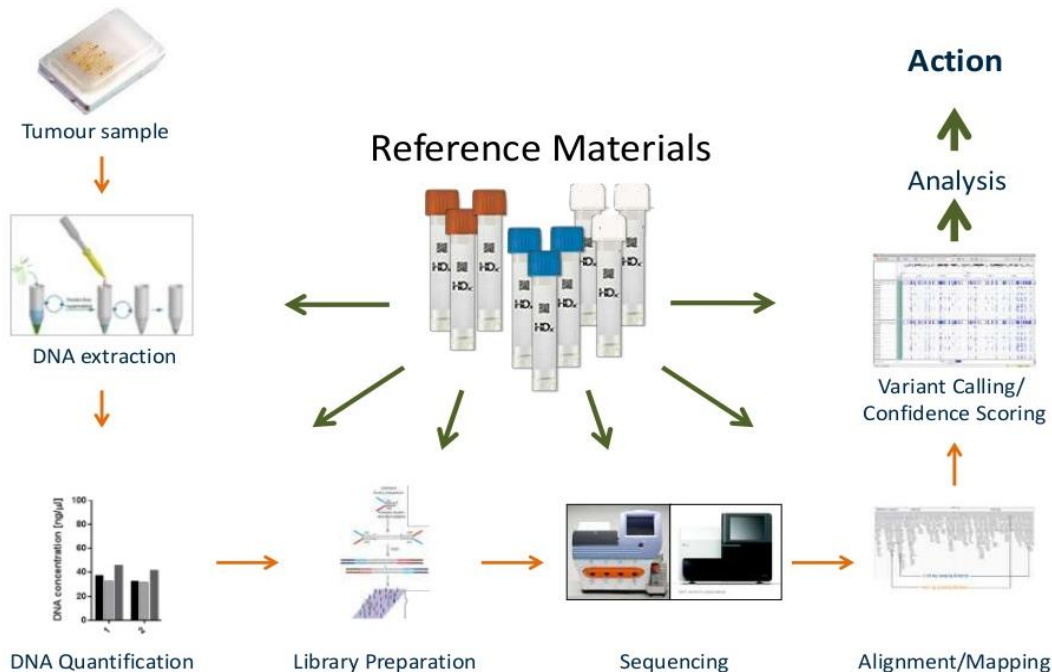


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SEQUENCE



ANALYZE
DATA

NGS Amplicon Panel Sequencing



Ultra-deep Sequencing of Commercial or Customized Amplicon Panels

- **Ion AmpliSeq™ Cancer Hotspot Panel v2** - targeting "hot spot" regions of 50 oncogenes which applied with 207 pairs primers cover 2800 mutations on 23 pairs human chromosomes.
- **Ion AmpliSeq™ Comprehensive Cancer Panel** - targeting exons within 409 oncogenes and tumor suppressor genes with 16,000 primers.
- **Ion AmpliSeq™ Inherited Disease Panel** - targeting exons of over 300 genes associated with over 700 inherited diseases including neuromuscular, cardiovascular, developmental, and metabolic diseases



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