

# Whole human genome sequencing services.

Powered by TruSeq®.



Now is the time to take your research further. Faster.

As whole human genome sequencing becomes more accessible, the ability to study the entire genome accelerates opportunities for discovery. Fueling a new generation of genomic studies.

Only Illumina offers access to the most accurate, most complete whole human genome sequencing data. Giving you the clearest picture of the genome. Empowering your research like never before.



# The only complete research solution.

You've got the samples, but not the dedicated resources or time. You need an experienced service partner to perform whole human genome sequencing to advance your studies.

Illumina offers the only end-to-end research solution, with guaranteed access to industry-leading TruSeq technology through our sequencing platforms, network of partners, and our own FastTrack Services. From discovery to validation, we provide support for every step of your project.

Once your whole human genome sequencing project is complete, we'll help you with follow-on studies. Whether it's targeted exome sequencing, SNP discovery, or RNA-Seq, you'll get the in-depth genomic information you need to accelerate your research.

And since your data will be delivered in the format most compatible with popular analysis tools, you can easily continue with any secondary studies of your own.



Our network of partners with one focus—to perform whole human genome sequencing projects on Illumina systems.



Our CLIA-approved and CAP-accredited in-house services, offering sequencing and genotyping.



Certified service labs producing validated Illumina data.

# Whole human genome sequencing services. Without compromise.

When you use the Illumina Genome Network, you get the highest data quality with the fastest turnaround, to decrease your time-to-publish. All of your data is delivered in industry-standard format to streamline collaborations and allow integrated follow-on studies. And everything is completed at a competitive price, so you can sequence more samples for less.

The Illumina Genome Network delivers the following key analysis results and metrics:

- **Sequence data:** Aligned and non-aligned reads in archival BAM format
- **Variant information:** SNP, indel, CNV, and SV (e.g., large insertion, large deletion) variant calls in VCF format
- **Sample report:** Summary of sample and genome quality metrics in PDF format
- **SNP concordance:** All genotyping and WGS data files are provided (Figure 1)

Greater confidence in results.

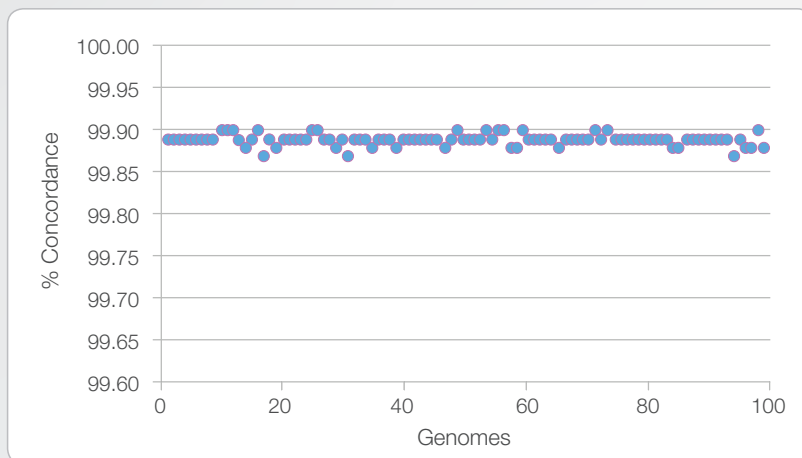


Figure 1. Independent confirmation with HumanOmni 2.5 BeadChip shows SNP concordance > 99% for every sample.

# Proven TruSeq technology. Most accurate genome at any coverage.

Illumina platforms make up the largest installed base of next-generation sequencing systems worldwide—referenced in over 3,700 peer-reviewed publications, and counting. They're the most trusted and widely adopted for a reason: our proven TruSeq technology, delivering the highest data accuracy in the industry for variant calling (Figure 2).

Whole-genome sequencing involves more than obtaining data with high quality scores or large coverage depth. It is more important to generate usable data that produces the most callable bases across the entire genome, including in traditionally difficult-to-sequence regions such as high GC (Figure 3).

Highest accuracy. More usable data.

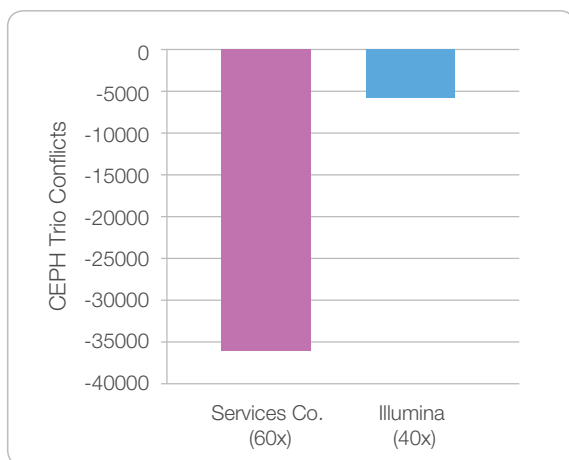


Figure 2. Services Co. data contains over 35,000 consensus conflicts or errors within the genome.

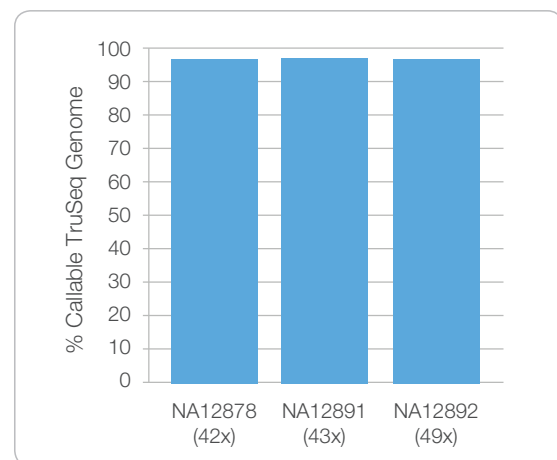


Figure 3. More usable data: > 95% of the NCBI reference genome.

\*Sequencing performed on an Illumina HiSeq system.

# Guaranteed access to the highest quality data.

It's easy to secure the most accurate, research-ready data that meets your needs, budget, and timelines. Whether you own an Illumina system or use our sequencing services, your research will always be powered by TruSeq.

## TruSeq<sup>ATCGATCG</sup>

### Accessing the TruSeq genome.



HiSeq<sup>®</sup> systems — used for the largest and most complex sequencing studies.



Whole human genome sequencing service.



Illumina sequencing and genotyping services.

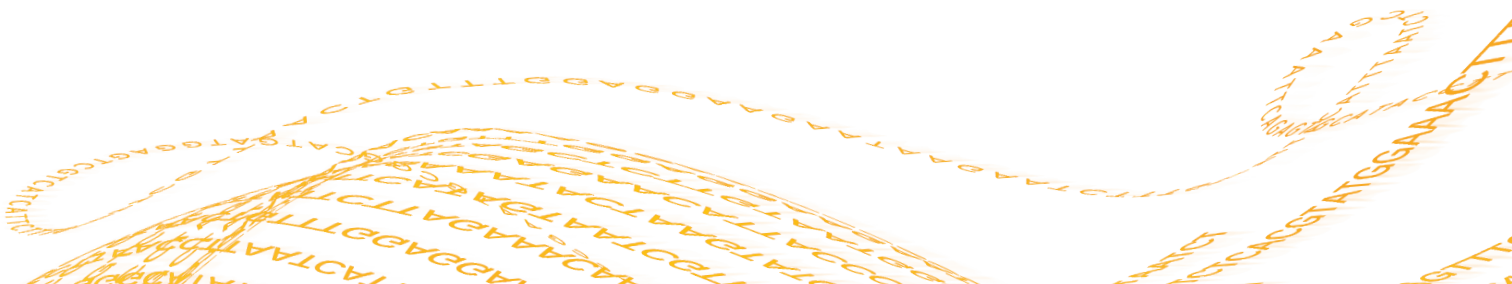


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Perform your next whole human genome  
sequencing study with Illumina.

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