Novogene

PhileKorea
Specialized in Medical & Bio Science since 2000

Human Whole Genome Sequencing Solutions

Human whole genome sequencing enables researchers to catalog the genetic constitution of individuals and capture all the variants present. It is commonly used in studies of a variety of diseases, especially cancer, human population evolution and pharmacogenomics.

Equipped with the powerful Illumina NovaSeq 6000 system, Novogene can sequence up to 280,000 human genomes per year at the lowest cost per genome. With extensive experience in whole genome sequencing and advanced bioinformatics capabilities, we can expertly meet customer needs for delivering comprehensive project results with quick turnaround times and the highest quality results.

Our Key Features & Advantages

Reliable & Faster Turnaround Time

The strategic locations of our labs across Asia and our extensive NGS system can provide faster turnaround time.

Extensive Experience

We have extensive records of sequencing projects that have been published in journals.

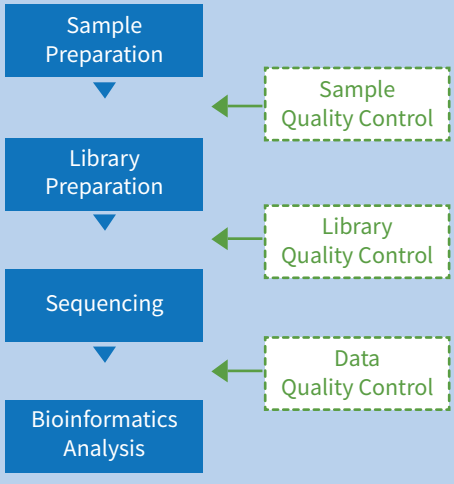
Multiple Choices

We offer multiple library choices and a comprehensive data analysis pipelines for your research needs.

Unsurpassed Data Quality

We guarantee that ⩾ 80% of bases have a sequencing quality score ⩾ Q30, exceeding Illumina's official guarantee of ⩾ 75%.

Project Workflow



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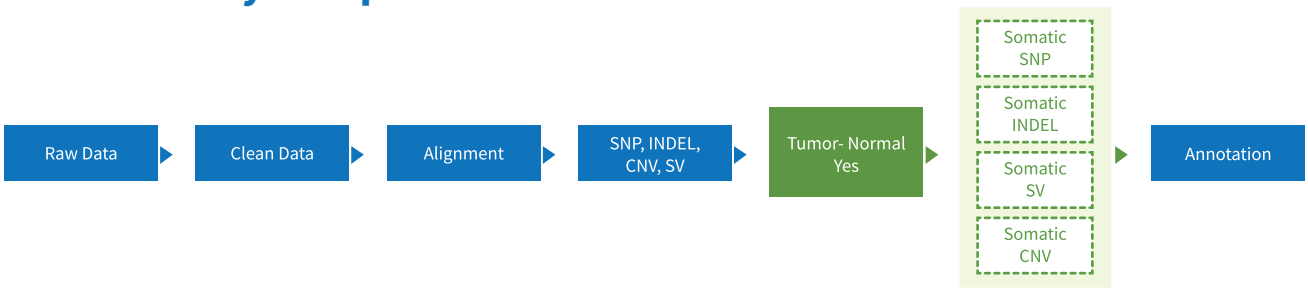
Standard Analysis Pipeline



Standard Analysis	Advanced Analysis
Data quality control	Tumor evolution analysis (Cancer)
Alignment with reference genome, statistics of sequencing depth and coverage	Tumor neoantigen identification (Cancer)
SNP/InDel/SV/CNV calling, annotation and statistics	Candidate variant identification (Disease)
Somatic SNP/InDel/SV/CNV calling, annotation and statistics (paired tumor samples)	Linkage analysis (Disease)
	CRISPR/Cas9 on-target and off-target detecting

Standard Analysis Content

Platform	Illumina Novaseq 6000
Read Length	Paired-end 150
Recommended Sequencing Depth	Tumor tissues: 50~70X; Adjacent normal tissues or blood: 30X Rare diseases: 30~50X
Data Quality	Guarantee Q30 ≥80%
Turnaround Time	Approximately 4 weeks from verification of sample quality to data delivery（<24 samples）

Sample Requirements

Library Type	Sample Type	Amount	Volume	Concentration	Purity (NanoDrop™/ Agrarose Gel)
Human Whole Genome Library	Genomic DNA	≥ 200 ng	≥ 20 μL	≥ 10 ng/μL	OD260/280=1.8~2.0 No degradation, no contamination
	Genomic DNA (PCR-free)	≥ 1.5 μg	≥ 20 μL	≥ 20 ng/μL	
	FFPE* DNA	≥ 800 ng	-	-	

Publications

Listed below are some publications that were supported by Novogene solutions.

Journal	IF	Title
Cell	11.059	Large-scale whole-genome sequencing of three diverse Asian populations in Singapore (2019)
Frontiers in Genetics	3.517	A study of ALK-positive pulmonary squamous-cell carcinoma: From diagnostics methodologies to clinical efficacy (2019)

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