

Genomics Solutions

With a wealth of technologies and platforms to choose from and large volumes of data that can be generated, selecting the ideal genomics solution for a project requires a thoughtful approach. At Precision, we have optimized complex workflows to ensure multiple downstream applications even with a single sample and have proven expertise

with low nucleic acid input and customizations. Precision's team collaborates to select and implement the best approach for your needs with unique technologies for liquid biopsy and for harmonizing and analyzing multiomic biomarker data to better support your projects.

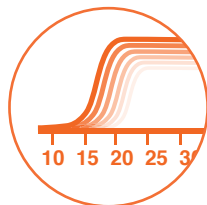
Genomics Platforms and Applications

Next-Generation Sequencing (NGS)



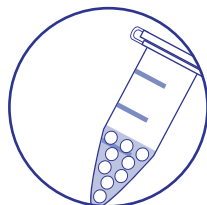
- Biomarker discovery
- Mutation detection
- Whole exome and targeted NGS
- Microsatellite instability
- Transcriptome profiling
- Targeted RNA sequencing

qPCR



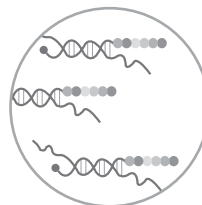
- Mutation detection
- Gene expression
- Copy number variation

ddPCR



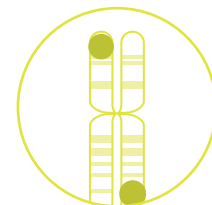
- Mutation detection
- Gene expression
- Copy number variation
- CAR-T and virus (gene therapy) biodistribution
- Liquid biopsy: cell-free DNA (cfDNA)
- Linkage analysis

NanoString



- Gene expression
- MicroRNA analysis
- Copy number variation
- Immune profiling to determine hot/cold tumor status

FISH / ISH



- Spatial profiling of genomic targets combined with protein targets
- Aberrant DNA and mRNA detection in tumor microenvironment



Next-Generation Sequencing

Precision supports preclinical and clinical studies with NGS services using Illumina and Thermo Fisher sequencing platforms. In addition, we can perform assays according to Clinical Laboratory Improvement Amendments as needed.

ThermoFisher
SCIENTIFIC

illumina



Droplet Digital™ PCR

Precision uses industry-leading systems for digital PCR assays, which, in addition to high precision and sensitivity, have scalability to accommodate high throughput analyses. Select applications include CAR-T and gene therapy biodistribution, as well as liquid biopsy cfDNA analysis.

BIO-RAD



FISH / ISH

Add spatial context to identify otherwise difficult-to-detect aberrant DNA/RNA, combined with protein targets, in the same slide. Precision develops state-of-the-art FISH and ISH assays to detect abnormalities in a range of tissues, including hematological and solid organ tumors.



qPCR

Providing quantitative information on known DNA and RNA targets, qPCR is one of the workhorse tools for preclinical and clinical studies. Precision offers a suite of qPCR applications, including genotyping assays, copy number variation assays, and gene expression profiling, tailored to your needs.



NanoString Assays

NanoString assays provide a unique way to quickly analyze up to 800 distinct gene or protein targets simultaneously using barcoded counting. Precision's scientific experts can recommend a validated panel or other approach to suit your study.

nanoString

Manage Data Chaos:



- Integrate all clinical and omics data, regardless of source and format
- Assess preanalytical data and Variant Call Format mutation calls; flexible engines enable data processing, discrepancy resolution, and assay-specific QC protocols
- Visualize and explore with connectors to external annotation databases (eg, GeneMANIA, Reactome, gnomAD) via interactive web application

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