CAPTURE-BASED APPROACH
FOR COMPREHENSIVE DETECTION
OF IMPORTANT ALTERATIONS

SEQUENCE MUTATIONS

MICROSATELLITE INSTABILITY

AMPLIFICATIONS

GENOMIC REARRANGEMENTS
Learn more at
PERSONALGENOME.COM/PROGENEUS
Next Generation Oncology Sequencing in your Laboratory

Built by pioneers in cancer genomics
A comprehensive solution for in-house NGS testing and data analysis

PROGENEUS™ enables your research laboratory to build a comprehensive, customized NGS offering using the most sensitive and specific methods for identifying and analyzing sequence mutations and structural alterations. As NGS cancer testing becomes more widely adopted, laboratories seek to build their own high quality solution with off-the-shelf components.

Unsurpassed limit of detection
For tissue biopsies, PROGENEUS detects mutations below 5% mutation allele frequency (MAF) with high sensitivity, enabling labs using PROGENEUS to identify up to 20% more mutations than competing methods.

More sensitive than traditional PCR-based tissue testing for low tumor purity samples
Our proprietary target enrichment methods enable quantification of unique reads at any given position (distinct coverage) to accurately identify mutations from low tumor purity samples.

PCR-based methods measure total coverage but not distinct coverage. The inability to calculate distinct coverage may compromise assay sensitivity and specificity, particularly when MAF is <20% which is typical with the low tumor purity samples.

More comprehensive than PCR-based tissue testing
CancerPRO Tissue panels detect sequence mutations, indels, copy number amplifications, MSI, and translocations – without requiring co-extraction of RNA to detect fusions.

Flexible sample types with limited material
PROGENEUS accommodates tissue (frozen or FFPE), DNA, saliva, and whole blood. For tissue biopsies, NGS testing can be completed using as little as 50ng (≥20% tumor purity) of DNA.

Unsurpassed number of base pair calls used to optimize VariantDx, our bioinformatics pipeline
VariantDx is the only bioinformatics pipeline validated and optimized against hundreds of millions of Sanger sequenced matched tumor/normal base pair calls and over 10,000 fusion events – delivering the lowest false positive rate and most accurate germline filter of any commercially available for NGS cancer testing variant calling software.

Cost-effective implementation
For labs that aspire to run high-quality NGS testing with minimal R&D investment, and interrogate all forms of oncogenic alterations, PROGENEUS provides the only fully supported and comprehensive platform solution.

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For Research Use Only. Not for Diagnostic Purposes.
Flexible testing panels
Pre-designed pan-cancer or targeted gene panels can be implemented and verified in your laboratory in as little as 12 weeks. Customized panels can be developed while collaborating with PGDx experts in 2-3 months.

Reagent kits
PGDx supplies all the key reagents required to prepare genomic libraries for sequencing from extracted DNA on Illumina's MiSeq® NGS systems.

On-site server
An on-site server houses VariantDx to ensure ownership and security of valuable sample data.

Flexible data formats
Sequencing data and analysis integration for customized reporting using XML or tab-delimited formats which integrates easily with your laboratory information system (LIS).

Web-based portal
Training and other PROGENEUS support tools accessible from a web-based portal tailored to your laboratory's set-up.

On-site training
Hands-on training can be conducted on-site or at the PGDx laboratory to build proficiency with our methods.

Verification support
Optional samples of well characterized mutations in FFPE formats are available for verification purposes.

Live customer service
Live customer support is available by phone or email connecting you to experts that can assist across every stage of the laboratory and data analysis workflow.

Operational NGS kit with full support by a world-class team of experts

NGS LAB SET-UP
IN AS LITTLE AS 12 WEEKS
• Rapid set-up on Illumina MiSeq® platforms
• Installation of bioinformatics server at your site
• Training available

NGS LAB TESTING
WITH A 1-2 WEEK TURNAROUND
• Turnaround time cut in half (when compared to send out testing)
Addressing the needs and obstacles to in-house NGS testing

Early adopters of genomics testing that have internalized processes within their own workflow cited various issues and barriers to successfully implementing NGS when polled by independent researchers*. PROGENEUS addresses or mitigates all of the stated barriers and needs.

**Reported barriers to implementing NGS**

- Scarcity of informatics expertise
- Rapidly changing nature of technology
- Verification of testing protocols
- Expense of implementation
- Amount of data to curate
- Lack of on-the-job training resources

**Unanticipated needs**

- Additional on-the-job training
- Training of pathologists and clinical scientists
- Staff development and professional expertise

**Comprehensive offering**

- Detects sequence mutations, MSI, amplifications & genomic rearrangements
- Customizable gene panels for multiple specimen types
- Precise NGS results with both high sensitivity and specificity
- Proven bioinformatics pipeline and customizable reporting

**Rapid implementation**

- Low up-front costs
- On-site technology platform from sample processing through data analysis
- In-person training and dedicated resource portal
- Dedicated technical support and live expert resources

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