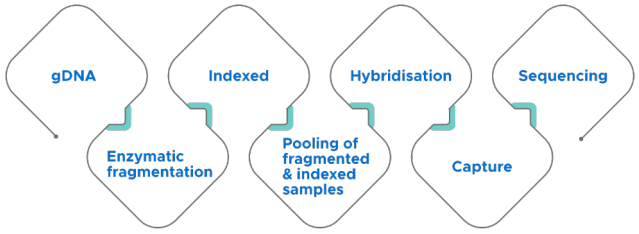
Study human pathologies with Sistemas Genómicos complete CE-IVD workflow, powered by MGI

Sistemas Genómicos offers a comprehensive genetic solution for the study of hereditary monogenic diseases across all medical areas. It covers the entire exome and mitochondiral DNA (mtDNA) with a sensitivity of up to 5% heteroplasmy. The CE-IVD certified HubExome Plus Panel® - GeneSGKit® is compliant with the new IVDR regulations. It features cutting-edge DNBSEQ™ technology and GeneSystems©, a CE-IVD cloud-based computing platform for secondary and tertiary data analysis. This platform is designed in accordance with international guidelines and scientific recommendations and includes a specific application for variant visualization and filtering, along with the option to work with virtual gene panels. The complete CE-IVD workflow combines advanced technology, comprehensive genomic coverage, and efficient analysis to enhance genetic testing and clinical decision-making, enabling researchers and clinicians to better understand and manage genetic disorders effectively.

Comprehensive Genetic Analysis CE-IVD Workflow

Library preparation with CE-IVD reagents & equipment



GeneSGKit® workflow

MGISP-100 MGISP-960

HubExome Plus Panel® - GeneSGKit® (CE-IVD)

- Manual and automated processing with bioinformatic computation (secondary analysis) and visualization, prioritization and interpretation system (tertiary analysis).
- Genomic coverage includes all exonic regions of the genome (>19000 genes), flanking regions (+/- 20 bp), and mtDNA.
- Comprehensive variant for SNVs, INDELs, large INDELs, MNVs, ALUs, and CNVs.
- Virtual panel design, under the CE-IVD scope (e.g., cardiology, neurology, bone diseases, etc.).

Choose one platform based on throughput requirements and reduce processing time from 8 to 1.5 hours with MGI's automated library preparation systems.

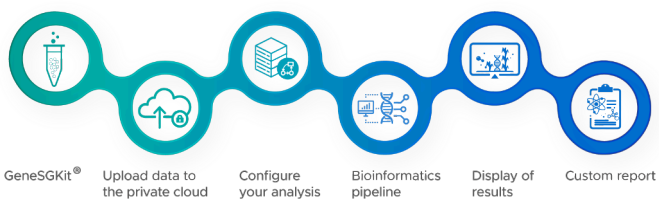
Sequencing

DNBSEQ-G400

Enhancing precision in genetic sequencing

Empowered by MGI's proprietary DNBSEQ™ technology, the DNBSEQ-G400 benchtop sequencer provides users with high-throughput, low-cost, and highly accurate sequencing data, reducing the risk of misdiagnosis and enabling confident patient care decisions.

Bioinformatic analysis



Efficient bioinformatic analysis with GeneSystems©

GeneSystems© is a cloud-based platform that streamlines bioinformatic analysis for genetic diagnosis and research. Registered as a class C medical device with CE marking for diagnostic use *in vitro* according to the IVDR. It offers solutions for secondary and tertiary analysis.

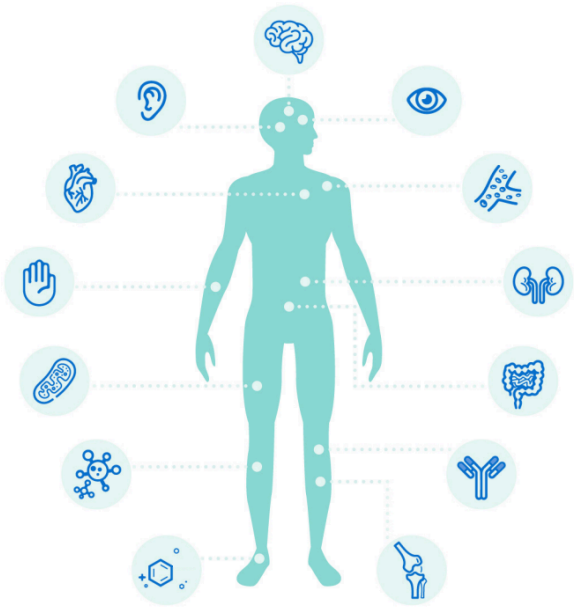
Key features of GeneSystems© cloud-based platform

- ISO13485 certification.
- Classified as a class C medical device for *in vitro* diagnosis (CE-IVD) according to the IVDR.
- Global prioritization system and automatic variant interpretation.
- Full annotation for variant classification.
- Extensive filtering options, including the generation of virtual panels from HPO terms.
- Automatic classification of variants according to ACMG guidelines.
- Customized genetic reports.

Virtual panel design covers specific human pathologies

The genetic analysis solution offered by Sistemas Genómicos encompasses the analysis of the following pathologies within the CE-IVD scope:

- Clinical Exome
- Opthalmology
- Hematology Custom
- Renal Diseases
- Gastroenterological Diseases
- Immunology
- Bone Dysplasia and Collagen Disorders
- Metabolopathy
- Mitochondrial Diseases
- Neurology
- Mitochondrial Diseases
- Ectodermal Diseases
- Cardiology
- Hearing Loss
- Neurology, Epilepsy, Intellectual Disability and Autism Spectrum Disorder



MGI Product Ordering Information

Category	Product	Catalogue number
Equipment	DNA Sequencing Library Preparation System MGISP-100	900-000207-00
	DNA Sequencing Library Preparation System MGISP-960	900-000158-00
	Genetic Sequencer DNBSEQ-G400	900-000168-00
Reagents	GeneSG Kit® (16 RXN)	961-000096-00
	GeneSG Kit® (48 RXN)	961-000093-00
	MGIEasy Universal Library Conversion Kit (App-A)/16 RXN/Kit	1000004155
	Universal Sequencing Reaction Kit (G400 SM FCL PE100)(CE-IVD)	1000022481
	High-throughput Sequencing Primer Kit (APP-C)/1 RXN/Kit	1000027472

SISTEMAS GENÓMICOS
A MEMBER OF SYNLAB

Sistemas Genómicos

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