SOPHiA GENETICS™

SOPHiA DDM™ GIInger Genomic Integrity Solution

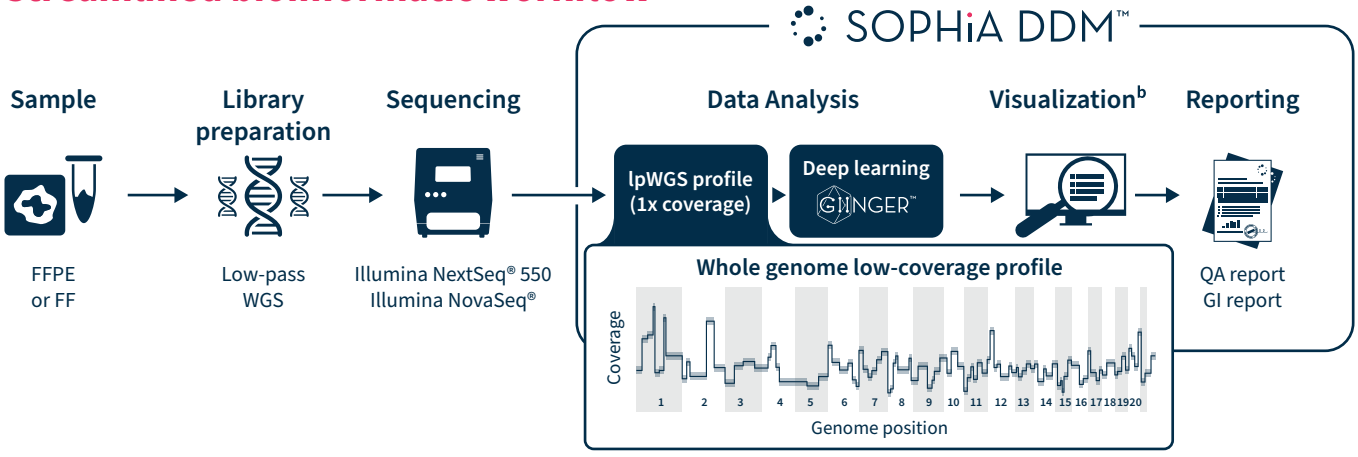
Expand identification of HRD+ cancer samples with a universal application

SOPHiA DDM™ GIInger Genomic Integrity Solution is a bioinformatic pipeline that defines the genomic instability (GI) status in ovarian cancer samples.

Powered by the **GIInger™** analytical algorithm, exclusively available on the **SOPHiA DDM™ Platform**, this **deep learning-based** approach enables you to analyze low-pass **Whole Genome Sequencing** (WGS) data (~1x coverage) in a decentralized workflow.

The solution offers a **versatile, universal** approach to genomic instability measurement that can **complement capture-based *BRCA* assays** for a **complete homologous recombination deficiency (HRD) assessment** without extra sample processing[a].

Streamlined bioinformatic workflow



> *The SOPHiA GENETICS team enabled a **seamless integration** of GIInger™ algorithm into our **already validated in-house capture-based library preparation.** We are now able to test the Genomic Integrity Index for all our ovarian cancer samples **quickly, accurately, and seamlessly.***
>
> INSTITUT PAOLI-CALMETTES
> unicancer Marseille

Benefits of SOPHiA DDM™ GIInger Genomic Integrity Solution

Maximize insights

from your low-pass WGS data (1x coverage) with the high analytical performance of the GIInger™ algorithm

Flexible, adaptable

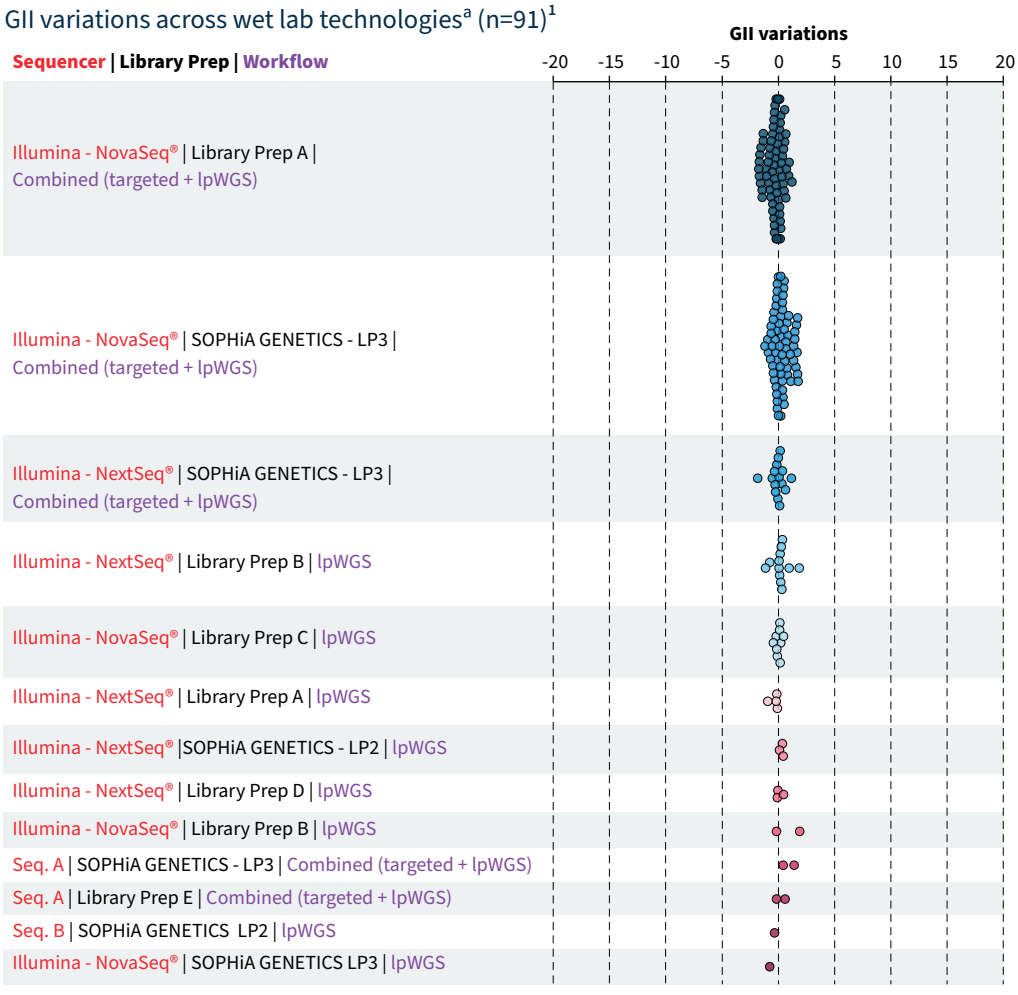
WGS approach that complements your existing hybrid capture-based BRCA analysis workflow for HRD assessment

Easily interpret

GI status with a clear PDF report, downloadable from the SOPHiA DDM™ Platform

Universal solution, robust across multiple wet lab technologies

GII variations across wet lab technologies[a] (n=91)[1]



GI analysis by GIInger™ is robust across **multiple sequencer types, library preps, and workflows.**

GIInger™ is also compatible with SOPHiA GENETICS **Universal Library Prep (ULP)**, streamlining NGS workflows with one single protocol across all RUO SOPHiA DDM™ Oncology applications.

Based on independent analyses of set of candidate samples processed in replicates across different wet lab workflows (n=91) . All analyses of SOPHiA DDM™ GIInger Genomic Integrity Solution with other library preparation kits and sequencers other than those defined in the product Instructions for Use (IFU) are for information use only.

Highly concordant with the SOPHiA DDM™ HRD Solution

Analytical concordance to SOPHiA DDM™ HRD Solution was evaluated using[2]:

- 129 DNA samples from ovarian cancer tissue
- 50 ng DNA input with DQN>3 and tumor content >30%
- Libraries sequenced in combined workflow compared to WGS only[c]

		SOPHiA DDM™ GIInger Genomic Integrity Solution GI Status				
		Positive	**Negative**	**Negative***	**Rejected**	**Inconclusive**
SOPHiA DDM™ HRD Solution GI Status	**Positive**	63	–	–	–	–
	Negative	–	58	–	–	–
	Negative*	–	2	4	–	–
	Rejected	–	1	–	1	–
	Inconclusive	–	–	–	–	–

Specifications

Product type	Dry lab solution – bioinformatic pipeline (reagents not included)
Sample type	FFPE or FF ovarian cancer tissue
WGS coverage depth	~1x recommended (0.4x minimum)
Limit of detection	30% tumor content
Sequencer compatibility[a]	Illumina NextSeq® 550 and NovaSeq®
Max. upload size	100 GB[d]
Product code	DL0121ILLRSM

Want to know more?

Contact us at:

info@sophiagenetics.com

[a]**SOPHiA DDM™ GIInger Genomic Integrity Solution was verified for use with SOPHiA GENETICS LP3 and Universal Library Prep and Illumina NextSeq® 550 and NovaSeq® only. Please contact local sales representative or info@sophiagenetics.com for further information on use with other wet lab technologies.**

[b]All results are exclusively provided via downloadable files; [c]Libraries prepared using LP3 reagents and sequenced on Illumina® NovaSeq 6000. [d]Data from sequencing runs exceeding 100 GB should be split and uploaded in multiple batches. FFPE, formalin-fixed, paraffin-embedded; FF, fresh-frozen; HRD, homologous recombination deficiency; lpWGS, low-pass whole genome sequencing; QA, quality. [1]. Data on File. [2]. SOPHiA DDM™ GIInger Genomic Integrity Solution. Instructions for Use. v1.1.. SOPHiA DDM™ GIInger Genomic Integrity Solution is for Research Use Only and is not intended for purposes other than research. SOPHiA DDM™ GIInger Genomic Integrity Solution is not for diagnostic, therapeutic, or treatment purposes.