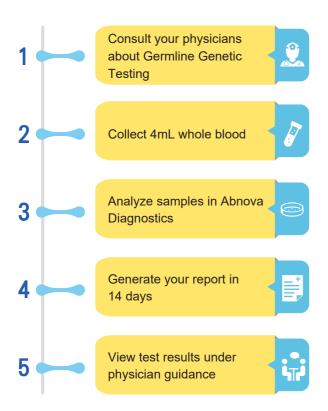
# Germline Genetic Testing Service Process





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# **Germline Genetic Testing Service**

Inherited Predisposing Gene and Variant NGS Analysis for Personalized and Hereditary Cancer Management

#### Introduction

Among all cancers, inherited gene mutations are responsible for approximately 10 percent of hereditary cancers. Hereditary cancers could be resulted from a single gene mutation causing multiple cancers, or various mutated genes leading to one specific cancer. Individuals who are carrying inherited gene mutations have higher cancer rate and higher risk of transmitting the mutations to offspring than individuals without gene mutations. Early detection of inherited gene mutations help us identifies possibility of cancers risk beforehand, thereby adopting preventive measures.

#### **Indications**

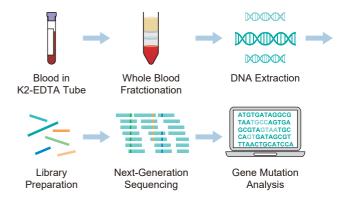
- · High-risk groups with family history of cancer
- Cancer patients with family history of cancer
- Patients with multiple primary tumors occurring in the same organ
- Patients with early-onset cancer diagnosed at ealier age than usual
- Patients with rare cancers (e.g. male breast cancer)
- Individuals suspected themselves of cancer predisposition gene carriers

## **Testing and Analytical Methods**

Abnova Diagnostics offers Germline Genetic Testing Service to requesting medical centers, clinics, and interested individuals. Leveraging on the next-generation sequencing (NGS) platform, we provide efficient, high-throughput identification and analysis

of heritable predisposing genes and their variants across the human genome. Only 4mL whole blood needs to be collected during the test and undergoes blood fractionation, DNA fractionation, DNA extraction, NGS and gene mutation analysis to generate an interpretative report. The report includes sequences of cancer gene mutations as well as their germline variants based on NGS, inherited cancer genes annotation and comparison with dataset, and additional heritable predisposing gene testing per customer's request.

### **Testing Workflow**



Abnova Diagnostics leverages multiple database platforms to access these essential yet complex changes and their annotations to provide critical information for personalized and hereditary cancer management.

Services		Cancers							
			Breast Cancer	Ovarian Cancer	Colorectal Cancer	Pancreatic Cancer	Protaste Cancer	Renal Cancer	Other Cancers
	Heritable Predisposing Genes	ATM					•		
		BRCA1	•	•		•	•		
		BRCA2	•	•		•	•		
		FANKA					•		
		MLH1			•				
		MSH2			•				
		MLH6			•				
		PALB2					•		
		PMS2			•				
		TP53							•
		VHL						•	