Cancer Risk DNA Report

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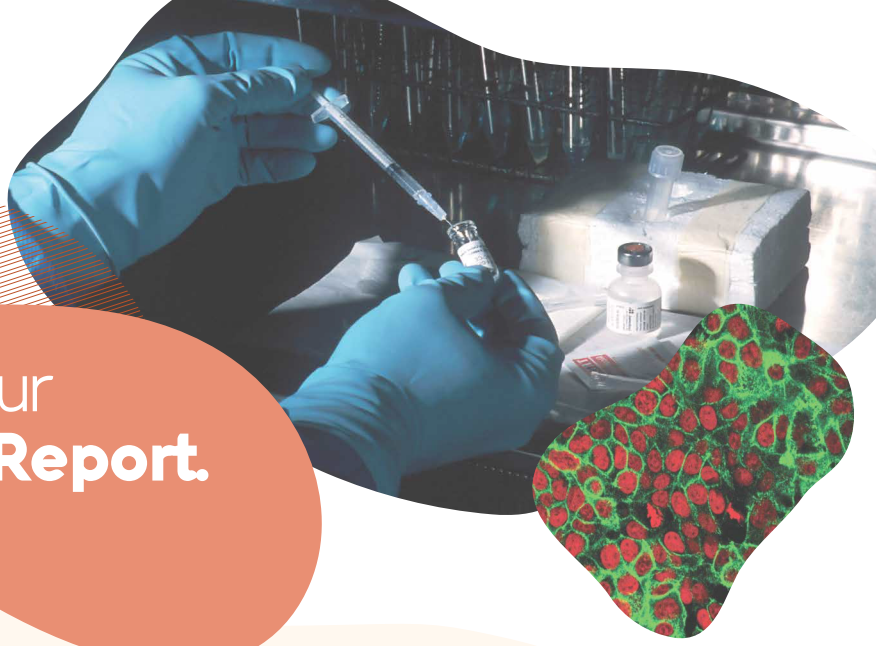

Welcome to Your Personal **DNA Report.**

PERSONAL DETAILS

Name : Sample
DOB : 10/01/1990
Gender : Female
Report No : 1111-1111-1111
Report Date : 08/08/2021

Laboratory Info

Specimen Type : Saliva
Specimen ID : 1111-1111

Thank you for choosing this DNA screening to understand your genetic profile on cancer risk. This DNA screening is a proprietary test developed by Cliniva Research Sdn. Bhd., the market leader in genetic testing and clinical diagnosis. Using the saliva sample provided by you, we have analysed nearly 200 genes to provide insights into your predisposed cancer risk.

This report covers aspects on how your genes influence your predisposed risk in 25 types of cancer such as breast, ovarian and colon cancers. Please take note that this screening is not a diagnosis for any cancer or any other conditions. This test is a prediction of personal genetic risk based on genotypic effect on certain types of cancer. Other risk factors were not taken into account.

If you have any questions or concerns regarding any aspects of your report, kindly contact us at care@missingpanda.com.

Disclaimer

This screening does not constitute a definitive diagnosis for the selected condition(s) in an individual as cancer is a multifactorial disease that is affected by genetic, environment and other factors such as age, gender, lifestyle, dietary habit, somatic mutations in the genome, viral infection and smoking history. The risk for an individual to develop cancer is dependent upon each of these factors as well as their family history. This screening is not a diagnostic test and should be used in context with other clinical findings by healthcare professionals to produce a diagnosis and treatment plan.

This screening only detects the presence of inherited genetic variations of the 199 selected single nucleotide polymorphisms (SNPs), which were known to have association with development of certain cancer types. Other known variants and genes not listed are not detected and the screening may not detect all known variants that result in cancer. It is possible that untested sites of variation may cause altered biological activity in an individual. The test analyses the following types of variants: nucleotide substitution and small deletions and insertions. This test is not intended to analyse variations such as gene rearrangement, deep intronic variation and gene translocation. The screening is not designed to detect chromosomal abnormalities or complex gene rearrangements. Information regarding genetic variations with no or unknown significant association cancer may become evident (Incidental Findings). Our policy is to not report or comment on any Incidental Findings that may be noted in the course of analysing the data.

The screening does not provide diagnosis, or treatment. The report and comments are for informational purposes only and should not be interpreted as specific professional medical advice. This report is based on tested genes and variants. Untested genes, variants and non-genetic factors and accumulation of somatic mutations also can influence the cancer risk. Please consult your medical doctor or qualified healthcare professional before making decisions about medical conditions, or before starting and stopping any treatment prescribed for you. Ethnicity may affect how relevant this test is for you. This report is based solely on the sample and information provided to Cliniva Research Sdn. Bhd. and does not take all factors related to client's health into account. Therefore, Cliniva Research Sdn. Bhd and employees of the company shall have no liability to any person or entity with regards to claims, loss, or damage caused, or alleged to be caused, directly or indirectly, by the use of information contained herein.

Understanding Your Results

Clinical significances of the variants in this report can be classified as:

Pathogenic - A genetic variant that increases an individual's susceptibility or predisposition to a certain disease. When such a variant (or mutation) is inherited, development of symptoms is more likely, but not certain.

Likely pathogenic - There is a high likelihood that this variant is disease-causing. Additional evidence is expected to confirm this assertion of pathogenicity, but there is a small chance that new evidence may demonstrate that this variant does not have clinical significance.

Associated with cancer - This variant is reported to be associated with high risk of getting certain types of cancer in Genome Wide Association Study (GWAS). However, the clinical significance of this variant is still unknown. It may increase the risk or have no effect on the risk of getting cancer.

Variants detected in this report are associated with the risk of developing cancer at different clinical significance. The results of this report do not eliminate your risk of developing cancer. Inherited variants explain some cases of cancer, but most are not inherited and cannot be explained by a single cause. Other factors that can influence cancer risk as well.

Your Summary Results

Disease Name	Variant Detected
Laryngeal Cancer (pg.3)	
Bladder Cancer (pg.4)	
Oral Cancer (pg.5)	
Esophageal Cancer (pg.6)	
Pharyngeal Cancer (pg.7)	
Chronic Lymphocytic Leukemia (pg.8)	
Pancreatic Cancer (pg.9)	
Multiple Myeloma (pg.10)	
Endometrial Cancer (pg.11)	
Cervical Cancer (pg.12)	
Liver Cancer (pg.13)	
Breast Cancer (pg.14-15)	
Colorectal Cancer (pg.16)	
Acute Lymphoblastic Leukemia (pg.17)	

Disease Name	Variant Detected
Chronic Myeloid Leukemia (pg.18)	
Non-Hodgkin's Lymphoma (pg.19)	
Kidney Cancer (pg.20)	
Gallbladder Cancer (pg.21)	
Melanoma (pg.22)	
Meningioma (pg.23)	
Glioma (pg.24)	
Basal Cell Carcinoma (pg.25)	
Hodgkin's Lymphoma (pg.26)	
Thyroid Cancer (pg.27)	
Ovarian Cancer (pg.28-29)	

- Variant(s) not deteced
- Variant(s) associated with cancer detected
- Pathogenic or likely pathogenic variant(s) detected

Cancer Risk

Laryngeal Cancer

Laryngeal cancer is cancer of the larynx, or voice box. Laryngeal cancer symptoms include voice changes, such as hoarseness, and a sore throat or cough that does not go away. Treatment may include surgery to remove part or all of the larynx, called a laryngectomy.

Signs and Symptoms

Signs and symptoms may include:
- Sore throat or cough that does not go away
- Voice change
- Pain or other difficulties when swallowing
- Lump in the neck or throat
- Dysphonia, trouble making voice sounds
- Ear pain

Risk Factors

Smoking or using other tobacco products greatly increases the risk of developing laryngeal cancer. Drinking alcohol, especially a lot of it, also raises the risk. Other risk factors for laryngeal cancer include:

-Age: Laryngeal cancer happens more in people age 55 and older
- Gender: Men are more likely to develop this cancer
- History of head and neck cancer

Preventions

The risk for developing cancer, including laryngeal cancer can be lowered by living a healthy lifestyle, such as:
- Quit smoking and avoid tobacco products
- Limit alcohol consumption
- Eat a healthy diet

Number of variant(s) detected: 1

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
FADS1	MP01001	Associated with Laryngeal Cancer	A	AA	Detected
NCR3	MP01002	Associated with Laryngeal Cancer	A	AG	Not Detected
TBX5	MP01003	Associated with Laryngeal Cancer	A	CC	Not Detected

Cancer Risk

Bladder Cancer

Bladder cancer is a common type of cancer that begins in the cells of the bladder. Bladder cancer most often begins in the cells (urothelial cells) that line the inside of the bladder. Urothelial cells are also found in the kidneys and the tubes (ureters) that connect the kidneys to the bladder. Urothelial cancer can happen in the kidneys and ureters, too, but it is much more common in the bladder.

Signs and Symptoms

Signs and symptoms may include:

- Blood in urine, which may cause urine to appear bright red or cola colored, though sometimes the urine appears normal and blood is detected on a lab test
- Frequent urination
- Painful urination
- Back pain

Risk Factors

Factors that may increase bladder cancer risk include:

- Smoking
- Increasing age
- Being male
- Exposure to certain chemicals
- Previous cancer treatment
- Chronic bladder inflammation
- Personal or family history of cancer

Preventions

Steps to help reduce risk:

- Quit smoking
- Take caution around chemicals
- Choose a variety of fruits and vegetables

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
HRAS	MP02001	Pathogenic	A	CC	Not Detected
	MP02002	Pathogenic	G	CC	Not Detected
	MP02003	Pathogenic	T	CC	Not Detected
KRAS	MP02004	Pathogenic	A	TT	Not Detected
FGFR3	MP02005	Pathogenic	T	CC	Not Detected
	MP02006	Pathogenic	G	CC	Not Detected
	MP02007	Pathogenic	G	CC	Not Detected
TSC1	MP02008	Pathogenic	A	GG	Not Detected
	MP02009	Pathogenic	A	GG	Not Detected
RB1	MP02010	Pathogenic	A	GG	Not Detected
	MP02011	Pathogenic	T	CC	Not Detected
Intergenic	MP02012	Associated with Bladder Cancer	T	CC	Not Detected
	MP02013	Associated with Bladder Cancer	C	TC	Not Detected

Cancer Risk

Oral Cancer

Mouth cancer refers to cancer that develops in any of the parts that make up the mouth (oral cavity). Mouth cancer can occur on the lips, gums, tongue, inner lining of the cheeks, roof of the mouth and floor of the mouth (under the tongue)

Signs and Symptoms

Signs and symptoms of mouth cancer may include:

- A lip or mouth sore that does not heal
- A white or reddish patch on the inside of the mouth
- Loose teeth
- A growth or lump inside the mouth
- Mouth pain
- Ear pain
- Difficult or painful swallowing

Risk Factors

Factors that can increase risk of mouth cancer include:

- Tobacco use of any kind, including cigarettes and cigars
- Heavy alcohol use
- Excessive sun exposure to the lips
- A sexually transmitted virus called human papillomavirus (HPV)
- A weakened immune system

Preventions

There is no proven way to prevent mouth cancer. However, risk of mouth cancer can be reduced if:

- Stop using tobacco or do not start
- Drink alcohol only in moderation
- Avoid excessive sun exposure to lips
- Visit dentist regularly

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
HRAS	MP03001	Pathogenic	T	CC	Not Detected
	MP03002	Pathogenic	A	CC	Not Detected
	MP03003	Pathogenic	G	CC	Not Detected
TP53	MP03004	Pathogenic	A	GG	Not Detected
	MP03005	Pathogenic/Likely Pathogenic	A	GG	Not Detected
	MP03006	Pathogenic	T	CC	Not Detected
	MP03007	Pathogenic	T	CC	Not Detected
OR52N2-TRIM5	MP03008	Associated with Oral Cancer	G	TT	Not Detected
GPN1	MP03009	Associated with Oral Cancer	G	AA	Not Detected

Cancer Risk

Esophageal Cancer

Esophageal cancer is cancer that occurs in the esophagus — a long, hollow tube that runs from the throat to the stomach. The esophagus helps move the food that is swallowed from the back of the throat to the stomach to be digested. Esophageal cancer usually begins in the cells that line the inside of the esophagus. Esophageal cancer can occur anywhere along the esophagus. More men than women get esophageal cancer.

Signs and Symptoms

Signs and symptoms of esophageal cancer include:

- Difficulty swallowing
- Weight loss without trying
- Chest pain, pressure or burning
- Worsening indigestion or heartburn
- Coughing or hoarseness

Risk Factors

Possible risk factors include:

- Having gastroesophageal reflux disease (GERD)
- Smoking
- Having precancerous changes in the cells of the esophagus (Barrett's esophagus)
- Being obese
- Drinking alcohol
- Having bile reflux
- Having difficulty swallowing
- Having a steady habit of drinking very hot liquids
- Not eating enough fruits and vegetables
- Undergoing radiation treatment to the chest or upper abdomen

Preventions

Steps to reduce risk of esophageal cancer:

- Quit smoking
- Drink alcohol in moderation
- Eat more fruits and vegetables
- Maintain a healthy weight

Number of variant(s) detected: 0

Gene	Variant ID	Clinical Significance	Risk Allele	Your Genotype	Your Results
ALDH2	MP04001	Associated with Esophageal Cancer	A	GG	Not Detected
CRTC1	MP04002	Associated with Esophageal Cancer	T	TG	Not Detected
HECTD4	MP04003	Associated with Esophageal Cancer	A	GG	Not Detected
PLCE1	MP04004	Associated with Esophageal Cancer	G	AG	Not Detected
XBP1	MP04005	Associated with Esophageal Cancer	T	TC	Not Detected