



Comprehensive Cancer Panel

A single test that detects 122 known genetic markers to evaluate the susceptibility of 15 cancers.

- Breast Comprehensive
- Ovarian Comprehensive
- Endometrial Comprehensive
- Prostate Comprehensive
- Fanconi Anemia
- Gastric
- Pancreatic
- Colorectal Comprehensive
- Thyroid
- Melanoma
- Nervous System/Brain
- Paraganglioma-Pheochromocytoma
- Sarcoma
- Renal/Urinary
- Hematologic Malignancy

DESCRIPTION

Comprehensive Cancer Panel is a next generation full gene sequencing hereditary cancer panel that simultaneously analyzes 122 genes associated with the most common hereditary cancers such as Breast, Ovarian, Colorectal, Endometrial, Melanoma, Pancreatic, Gastric, Prostate, Thyroid, and many more. About 10% of all cancer cases are due to hereditary cancer. The identification of the genetic cause of cancer in these patients allows the development of a personalized plan for clinical management for the affected patient and family members.

APPLICATION(S)

- Genetic testing for cancer is recommended for patients with a personal or a family history suggestive of hereditary cancer. Patients with cancer at an early age or with bilateral (more than one primary) cancer or patients with several family members with similar cancer or other manifestations provocative of cancer syndromes.
- The identification of the gene responsible for the observed cancer might influence the treatment of the cancer patient (radiotherapy, surgical or pharmacological management).
- Some mutations are associated with several types of cancer, therefore the identification of the affected gene will result in a preventive plan that involves the different organs that might be affected.
- When the family mutation is known, unaffected individuals can be tested to start risk reducing interventions before any cancer manifestation.

Technique	NGS Full Sequencing + Deletion/Duplication
Sample Type	Blood in EDTA or Buccal Swab
TAT	3-4 Weeks + Shipping

GENES TESTED FOR THE MOST COMMON HEREDITARY CANCERS

Breast Comprehensive	ATM, BARD1, BRCA1, BRCA2, BRIP1, CDH1, CHEK2, MRE11A, NBN, NF1, PALB2, PTEN, RAD50, RAD51C, RAD51D, STK11, TP53, XRCC2
Colorectal Comprehensive	APC, AXIN2, BMPR1A, CHEK2, EPCAM, GALNT12, GREM1, MLH1, MLH3, MSH2, MSH6, MUTYH, PMS2, POLD1, POLE, PTEN, SMAD4, STK11, TP53
Endometrial Comprehensive	BRCA1, BRCA2, EPCAM, MLH1, MSH2, MSH6, POLD1, PMS2, PTEN, TP53
Fanconi Anemia	BRCA2, BRIP1, ERCC4, FANCA, FANCB, FANCC, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, PALB2, RAD51C, SLX4, XRCC2
Gastric	APC, BMPR1A, CDH1, EPCAM, KIT, MLH1, MSH2, MSH6, NF1, PDGFRA, PMS2, SMAD4, STK11, TP53
Hematologic Malignancy	ATM, BLM, CEBPA, EPCAM, GATA2, HRAS, MLH1, MSH2, MSH6, NBN, NF1, PMS2, RUNX1, TERC, TERT, TP53
Melanoma	BAP1, BRCA2, CDK4, CDKN2A, CHEK2, MITF, PTEN, TP53, RB1
Nervous System/Brain	ALK, APC, ATM, DICER1, EPCAM, HRAS, MEN1, MLH1, MSH2, MSH6, NF1, NF2, PHOX2B, PMS2, PRKAR1A, PTCH1, PTEN, SMARCA4, SMARCB1, SMARCE1, SUFU, TP53, TSC1, TSC2, VHL
Ovarian Comprehensive	ATM, BARD1, BRCA1, BRCA2, BRIP1, EPCAM, MLH1, MSH2, MSH6, MRE11A, NBN, PMS2, RAD51C, RAD51D, SMARCA4, STK11, TP53
Pancreatic	APC, ATM, BMPR1A, BRCA1, BRCA2, CDK4, CDKN2A, EPCAM, FANCC, MEN1, MLH1, MSH2, MSH6, NF1, PALB2, PMS2, SMAD4, STK11, TP53, TSC1, TSC2, VHL
Paraganglioma-Pheochromocytoma	FH, MAX, NF1, RET, SDHA, SDHAF2, SDHB, SDHC, SDHD, TMEM127, VHL
Prostate Comprehensive	BRCA1, BRCA2, CHEK2, EPCAM, HOXB13, MLH1, MSH2, MSH6, NBN, PMS2, TP53
Renal/Urinary	BAP1, CDC73, CDKN1C, DICER1, DIS3L2, EPCAM, FH, FLCN, GPC3, MET, MITF, MLH1, MSH2, MSH6, PMS2, PTEN, SDHA, SDHB, SDHC, SDHD, SMARCA4, SMARCB1, TP53, TSC1, TSC2, VHL, WT1
Sarcoma	APC, BLM, CDKN1C, DICER1, EPCAM, FH, HRAS, KIT, MLH1, MSH2, MSH6, NBN, NF1, PDGFRA, PMS2, PRKAR1A, PTCH1, RB1, RECQL4, SDHA, SDHB, SDHC, SDHD, SUFU, TP53, WRN
Thyroid	APC, CHEK2, DICER1, PTEN, PRKAR1A, RET, TP53