UPMC
LIFE CHANGING MEDICINE

Hereditary Cancer Panels

BRCA1 and BRCA2 Comprehensive Analysis (2 genes) (EPIC Order code=LAB15365) (CPT code=81162)
BRCA1, BRCA2
BRCA1 and BRCA2 are the most common causes of hereditary breast and ovarian cancer and carry the highest breast/ovarian cancer risks. Medical management guidelines including screening and prevention options are well-established.

Hereditary Breast Cancer Panel (12 genes) (EPIC Order code=LAB13507) (CPT code=81162)
ATM, BARD1, BRCA1, BRCA2, CDH1, CHEK2, PALB2, PTEN, RAD51C, RAD51D, STK11, TP53
The genes on this panel confer a moderate or high (20% to greater than 50%) lifetime breast cancer risk. Medical management guidelines are available for breast cancer risks. Many of these genes are associated with an increased risk of other cancer types, including ovarian, gastric, colorectal, and pancreatic cancer. Screening and prevention options exist for some, but not all, of these additional cancer risks.

- Reanalysis (Order code=LAB13644)

Hereditary Breast and Ovarian Cancer Panel (20 genes) (EPIC Order code=LAB13388) (CPT code=81432)
ATM, BARD1, BRCA1, BRCA2, BRIP1, CDH1, CHEK2, DICER1, EPCAM (del/dup only), MLH1, MSH2, MSH6, NF1, PALB2, PMS2, PTEN, RAD51C, RAD51D, STK11, TP53
In addition to the moderate and high-risk breast cancer genes on the Hereditary Breast Cancer Panel, this test includes newly identified genes which are expected to increase ovarian or breast cancer risks to some degree. Ovarian cancer risk reduction guidelines are available for many, but not all, of the genes on this panel. Many of these genes confer an increased risk of other cancer types, including gastric, colorectal, and pancreatic cancer. Screening and prevention options exist for some, but not all, of these additional cancer risks.

- Reanalysis (Order code=LAB13644)

Gastrointestinal Cancers and Polyposis Panel (22 genes) (EPIC Order code: LAB13483) (CPT code=81435)
APC, ATM, AXIN2, BMPR1A, CDH1, CHEK2, CTNN1A, EPCAM (del/dup only), GREM1-SCG5, MLH1, MSH2, MSH3, MSH6, MUTYH, NTHL1, PMS2, POLD1, POLE, PTEN, SMAD4, STK11, TP53
The genes on this panel are associated with an increased risk to develop colon cancer and/or polyposis. Many of these genes confer an increased risk of other cancer types, including cancers of the GI/GU tract, endometrium and ovaries, and breast.

- Reanalysis (Order code=LAB13646)

Hereditary Cancer Predisposition Panel (33 genes) (EPIC Order code=LAB13508) (CPT code=81479)
APC, ATM, AXIN2, BARD1, BMPR1A, BRCA1, BRCA2, BRIP1, CDH1, CDKN2A, CHEK2, CTNN1A, DICER1, EPCAM (del/dup only), GREM1-SCG5, MLH1, MSH2, MSH3, MSH6, MUTYH, NBN (LP/P carrier status), NF1, NTHL1, PALB2, PMS2, POLD1, POLE, PTEN, RAD51C, RAD51D, SMAD4, STK11, TP53
This panel includes genes associated with well-described hereditary cancer syndromes including hereditary breast and ovarian cancer syndrome, Lynch syndrome, adenomatous and non-adenomatous polyposis syndromes, neurofibromatosis type 1, Peutz-Jeghers syndrome, and Li Fraumeni syndrome. It also includes genes more recently found to increase risks for cancers such as breast, ovarian, colorectal, melanoma skin, and pancreatic cancer. Screening and prevention options exist for some, but not all, of the risks associated with the genes on this panel.

- Reanalysis (Order code=LAB13645)

Hereditary Pancreatic Cancer Panel (14 genes) (EPIC Order code=LAB13511) (CPT code=81162)
APC, ATM, BRCA1, BRCA2, CDKN2A, CHEK2, EPCAM (del/dup only), MLH1, MSH2, MSH6, PALB2, PMS2, STK11, TP53
This panel includes genes known or suspected to increase the risk of pancreatic cancer. Many of these genes confer an increased risk of other cancer types, including colorectal, breast, melanoma skin, and gynecologic cancers. Screening and prevention options exist for some, but not all, of these additional cancer risks.

Hereditary Prostate Cancer Panel (15 genes) (EPIC Order code=LAB13512) (CPT code=81162)
ATM, BRCA1, BRCA2, BRIP1, CHEK2, EPCAM (del/dup only), HOXB13 (c.251G>A only), MLH1, MSH2, MSH6, PALB2, PMS2, RAD51C, RAD51D, TP53
This panel includes genes known or suspected to increase the risk of prostate cancer. Many of these genes confer an increased risk of other cancer types, including colorectal, breast, and gynecologic cancers. Screening and prevention options exist for some, but not all, of these additional cancer risks.

- Reanalysis (Order code=LAB13647)

Lynch Syndrome Panel (5 genes) (EPIC Order code=LAB13584) (CPT code=81292, 81317, 81479, 81295, 81298)
EPCAM (del/dup only), MLH1, MSH2, MSH6, PMS2
This panel includes the five mismatch repair genes which cause Lynch syndrome, an autosomal dominant hereditary cancer syndrome associated with significantly increased lifetime risks for cancers of the colon, ovaries, endometrium, genitourinary tract, upper gastrointestinal tract, and other organs.

Familial Hyperparathyroidism Panel (9 genes) (EPIC Order code=LAB15320) (CPT code=81479)
APS21, CASR, CDC73, CDKN1B, GCM2, GNA11, MAX, MEN1, RET
This panel includes genes associated with hyperparathyroidism, which is characterized by overactivity of the parathyroid glands. Associated clinical manifestations include kidney stones, nausea, vomiting, hypertension, osteoporosis, weakness, and fatigue. Some of these genes also confer an increased risk of cancer. Screening and options exist for some, but not all, of the risks associated with the genes on this panel.

Extended Hereditary Cancer Panel (58 genes) (EPIC Order code=LAB15321) (CPT code=81479)
AP2S1, APC, ATM, AXIN2, BAP1, BARD1, BMPR1A, BRCA1, BRCA2, BRIP1, CASR, CDC73, CDH1, CDK4, CDKN1B, CDKN2A, CHEK2, CTNN1A, DICER1, EPCAM (del/dup only), FH, FLCN, GCM2, GNA11, GREM1-SCG5, MAX, MEN1, MET, MLH1, MSH2, MSH3, MSH6, MUTYH, NBN (LP/P carrier status), NF1, NTHL1, PALB2, PMS2, POLD1, POLE, POT1, PRKAR1A, PTEN, RAD51C, RAD51D, RB1, RET, SDHA, SDHAF2, SDHB, SDHC, SDHD, SMAD4, STK11, TP53, TSC1, TSC2, VHL
This panel includes genes associated with well-described hereditary cancer and familial hyperparathyroid syndromes. These syndromes include hereditary breast and ovarian cancer syndrome, Lynch syndrome, adenomatous and non-adenomatous polyposis syndromes, neurofibromatosis type 1, Peutz-Jeghers syndrome, and Li Fraumeni syndrome. It also includes genes more recently found to increase risks for cancers such as breast, ovarian, colorectal, melanoma skin, and pancreatic cancer. Screening and prevention options exist for some, but not all, of the risks associated with the genes on this panel.

- Reanalysis (Order code=LAB15359)

Hereditary Melanoma Panel (9 genes) (EPIC Order code=LAB15322) (CPT code=81479)
BAP1, BRCA2, CDK4, CDKN2A, MITF (c.952G>A only), POT1, PTEN, RB1, TP53
This panel includes genes known or suspected to increase the risk of melanoma. Many of these genes confer an increased risk of other cancer types, including colorectal, breast, and gynecologic cancers. Screening and prevention options exist for some, but not all, of these additional cancer risks.

- Reanalysis (Order code=LAB15360)