

Hereditary Cancer Panels

Key Features:

- Includes sequencing and CNV analyses
- 100% coverage of targeted regions at >50x
- Sensitivity and specificity >99%
- Rigorous classification adhering to ACMG guidelines
- Multiple panel options available

Panel	Genes
BRCA1, BRCA2 panel*	BRCA1, BRCA2
Breast Cancer panel**	ATM, BRCA1, BRCA2, CDH1, CHEK2, NBN, NF1, PALB2, PTEN, STK11, TP53
Breast and Gynecologic Cancer panel**	ATM, BRCA1, BRCA2, BRIP1, CDH1, CHEK2, EPCAM, MLH1, MSH2, MSH6, NBN, NF1, PALB2, PMS2, PTEN, RAD51C, RAD51D, STK11, TP53
Colorectal Cancer panel**	APC, AXIN2, BMPR1A, CHEK2, EPCAM, GREM1, MLH1, MSH2, MSH3, MSH6, MUTYH, NTHL1, PMS2, POLD1, POLE, PTEN, SMAD4, STK11, TP53
Prostate Cancer panel**	ATM, BRCA1, BRCA2, CHEK2, EPCAM, HOXB13, MLH1, MSH2, MSH6, NBN, PMS2, TP53
Hereditary Cancer panel**	APC, ATM, AXIN2, BARD1, BMPR1A, BRCA1, BRCA2, BRIP1, CDH1, CDK4, CDKN2A, CHEK2, CTNNA1, DICER1, EPCAM, GREM1, HOXB13, KIT, MEN1, MLH1, MSH2, MSH3, MSH6, MUTYH, NBN, NF1, NTHL1, PALB2, PDGFRA, PMS2, POLD1, POLE, PTEN, RAD50, RAD51C, RAD51D, SDHA, SDHB, SDHC, SDHD, SMAD4, SMARCA4, STK11, TP53, TSC1, TSC2, VHL

*\$600 CAD, with genetic counselling | ** \$729 CAD, with genetic counselling

Panel	Genes
Gastric Cancer panel	APC, BMPR1A, CDH1, CTNNA1, EPCAM, KIT, MLH1, MSH2, MSH6, NF1, PDGFRA, PMS2, SDHA, SDHB, SDHC, SDHD, SMAD4, STK11, TP53
Hyperparathyroidism Cancer panel	AP2S1, CASR, CDC73, CDKN1B, GNA11, MEN1, RET
Melanoma Cancer panel	BAP1, BRCA2, CDK4, CDKN2A, MITF, POT1, PTEN, RB1, TP53
Myelodysplastic / Leukemia Cancer panel	ATM, BLM, CEBPA, EPCAM, GATA2, HRAS, MLH1, MSH2, MSH6, NBN, NF1, PMS2, RUNX1, TERC, TERT, TP53
Nervous System / Brain Cancer panel	AIP, ALK, APC, DICER1, EPCAM, HRAS, LZTR1, MEN1, MLH1, MSH2, MSH6, NF1, NF2, PHOX2B, PMS2, PRKARIA, PTCH1, PTEN, RB1, SMARCA4, SMARCB1, SMARCE1, SUFU, TP53, TSC1, TSC2, VHL
Pancreatic Cancer panel	APC, ATM, BMPR1A, BRCA1, BRCA2, CDKN2A, EPCAM, MEN1, MLH1, MSH2, MSH6, NF1, PALB2, PMS2, SMAD4, STK11, TP53, TSC1, TSC2, VHL
Paraganglioma-Pheochromocytoma Cancer panel	MAX, NF1, RET, SDHA, SDHAF2, SDHB, SDHC, SDHD, TMEM127, VHL
Renal / Urinary Tract Cancer panel	BAP1, CDC73, CDKN1C, DICER1, DIS3L2, EPCAM, FH, FLCN, GPC3, MET, MLH1, MSH2, MSH6, PMS2, PTEN, REST, SDHB, SDHC, SMARCA4, SMARCB1, TP53, TSC1, TSC2, VHL, WT1
Sarcoma Cancer panel	APC, BLM, CDKN1C, DICER1, EPCAM, EXT1, EXT2, FH, HRAS, KIT, MLH1, MSH2, MSH6, NBN, NF1, PDGFRA, PMS2, PRKARIA, PTCH1, RB1, RECQL4, SDHA, SDHB, SDHC, SDHD, SUFU, TP53, WRN
Thyroid Cancer panel	APC, CHEK2, DICER1, PRKARIA, PTEN, RET, TP53

Panels are \$729 CAD. Genetic counselling services may not be offered with these panels.

Turn-around time (TAT)	Single Gene: 4 weeks	Panels: 4-6 weeks
	Familial Mutation: 2-4 weeks Price: \$300 for point mutations, \$450 for Dosage (MLPA or qPCR)	

Hereditary and Somatic Cancer - Selective Sequencing

Gene	Exon(s)
BRAF	exon 15
CALR	exon 9
EGFR	exons 18-21
IDH1	exon 4
IDH2	exon 4
JAK2	exons 12, 14, 16
KIT	exons 8, 9, 11, 13, 17
KRAS	exons 2, 3
MPL	exon 10
NPM1	exon 11
NRAS	exons 2, 3
PDGFRA	exons 12, 14, 18

Ranges from \$500-750 CAD, depending on the number of exons

Somatic Mutation Cancer Panels

Gene	Exon(s)
BRCA1, BRCA2 panel*	BRCA1, BRCA2
Myeloid tumor panel**	ASXL1, CEBPA, DNMT3A, ETV6, EZH2, IDH1, IDH2, KIT, KRAS, NPM1, NRAS, PTPN11, RAD21, RUNX1, SF3B1, SMC1A, SMC3, STAG2, TET2, TP53, U2AF1, WT1
Solid tumor panel***	ABL1, AKT1, AKT2, AKT3, ALK, APC, AR, ARAF, ARID1A, ASXL1, ATM, ATR, ATRX, AXL, BAP1, BRAF, BRCA1, BRCA2, BTK, CBL, CCND1, CDH1, CDK12, CDK4, CDK6, CDKN1B, CDKN2A, CDKN2B, CHEK1, CHEK2, CREBBP, CSF1R, CTNNA1, DDR2, EGFR, ERBB2, ERBB3, ERBB4, ERCC2, ESR1, EZH2, FANCA, FANCD2, FANCI, FBXW7, FGFR1, FGFR2, FGFR3, FGFR4, FLT3, FOXL2, GATA2, GNA11, GNAQ, GNAS, H3F3A, HIST1H3B, HNF1A, HRAS, IDH1, IDH2, JAK1, JAK2, JAK3, KDR, KEAP1, KIT, KMT2A, KMT2C, KMT2D, KNSTRN, KRAS, MAGOH, MAP2K1, MAP2K2, MAP2K4, MAPK1, MAX, MDM4, MED12, MEN1, MET, MLH1, MPL, MRE11, MSH2, MSH6, MTOR, MYC, MYCN, MYD88, NBN, NF1, NF2, NFE2L2, NOTCH1, NOTCH2, NOTCH3, NRAS, NTRK1, NTRK2, NTRK3, PALB2, PDGFRA, PDGFRB, PIK3CA, PIK3CB, PIK3R1, PMS2, POLE, PPP2R1A, PTCH1, PTEN, PTPN11, RAC1, RAD50, RAD51, RAD51B, RAD51C, RAD51D, RAF1, RBL1, RBM10, RET, RHEB, RHOA, RIT1, RNF43, ROS1, SETD2, SF3B1, SLX4, SMAD4, SMARCA4, SMARCB1, MO, SPOP, SRC, STAT3, STK11, TERT, TOP1, TP53, TSC1, TSC2, TSHR, U2AF1, VHL, XPO1

*\$1,000 CAD
 **\$1,500 CAD
 ***\$1,200 CAD

Somatic Hotspot Testing

Gene	Hotspot
BRAF	c.1799T>A, p.V600E
EGFR	c.2573T>G, p.L858R
KRAS	c.35G>A, p.G12D c.35G>T, p.G12 c.38G>A, p.G13D
NRAS	c.181C>A, p.Q61K c.182A>G, p.Q61R c.34G>T, p.G12C c.35G>A, p.G12D

\$450 CAD, per somatic hotspot

Turn-around time (TAT)	Single Gene: 4 weeks	Panels: 4-6 weeks
	Familial Mutation: 2-4 weeks Price: \$300 for point mutations, \$450 for Dosage (MLPA or qPCR)	