SOPHiA GENETICS™

Accelerate your analysis with pre-designed and tested panels

COMMUNITY SOLUTIONS FOR HEREDITARY CANCERS

HIGHLIGHTS

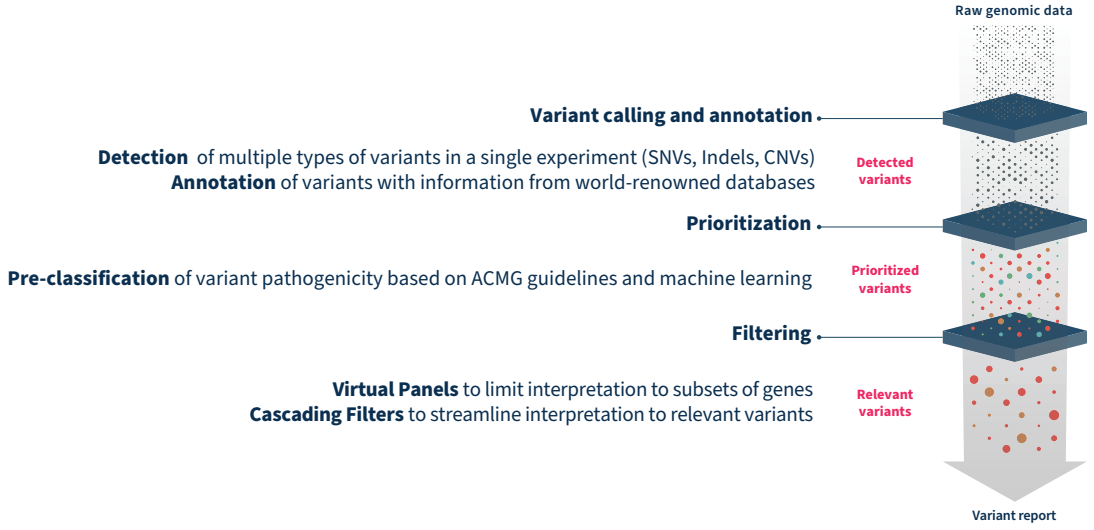
- Uniform coverage of target regions
- High quality probe design to optimize on-target rate
- Gene content developed with genomic experts in hereditary cancers
- Simple and reliable data analysis and interpretation

Designing, creating, and testing a new next-generation sequencing (NGS) solution takes considerable time and effort. **SOPHiA GENETICS™ Community Solutions for Hereditary Cancers are targeted, capture-based NGS applications** developed and tested by genomic experts to minimize set-up challenges and accelerate your research. These panels cover a wide range of genes related to Hereditary Cancers and are fully customizable, with the flexibility to add or remove genes to meet your unique requirements.

In combination with the analytical and interpretation capabilities of the SOPHiA DDM™ Platform, our Community Solutions help you to gain accurate and cost-effective insights from your target regions of interest.

For a fast and worry-free transition to routine analysis, the **SOPHiA GENETICS™ MaxCare Program** provides full set-up assistance.

The SOPHiA GENETICS™ **Community Solutions** leverage on the SOPHiA DDM™ Platform to ensure accurate variant detection and streamlined variant assessment.



Discover our Community Solutions for **Hereditary Cancers** in this flyer.

Solution	Genes covered		Analytical performance			
			Sensitivity	Specificity	Accuracy	Precision
CHCS_O_v1[a]	**30 genes:**	*ABRAXAS1, APC, ATM, BARD1, BMPR1A, BRCA1, BRCA2, BRIP1, CDH1, CHEK2, EPCAM, MLH1, MRE11, MSH2, MSH6, MUTYH, NBN, PALB2, PMS2, PMS2CL, POLD1, POLE, PTEN, RAD50, RAD51C, RAD51D, SMAD4, STK11, TP53, XRCC2*	100%	99.99%	99.99%	99.08%
CHCS_G_v1[b]	**33 genes:**	*ABRAXAS1, APC, ATM, BARD1, BMPR1A, BRCA1, BRCA2, BRIP1, CDH1, CDKN2A, CHEK2, EPCAM, MLH1, MRE11, MSH2, MSH3, MSH6, MUTYH, NBN, NTHL1, PALB2, PMS2, PMS2CL, POLD1, POLE, PTEN, RAD50, RAD51C, RAD51D, SMAD4, STK11, TP53, XRCC2*	98.5%	99.99%	99.99%	98.99%
CHCS_Z_v1	**55 genes:**	*AIP, AIRE, AP2S1, APC, ATM, BAP1, BMPR1A, BRCA1, BRCA2, BRIP1, CASR, CDC73, CDH1, CDK4, CDKN1B, CDKN2A, CHEK2, EPCAM, FH, FLCN, GATA3, GCM2, GNA11, GREM1, MAX, MEN1, MET, MLH1, MSH2, MSH6, MUTYH, NTHL1, PALB2, PMS2, PMS2CL, POLD1, POLE, PRKAR1A, PTEN, PTH, RAD51C, RAD51D, RET, RNF43, SCG5, SDHAF2, SDHB, SDHC, SDHD, SMAD4, STK11, TBCE, TMEM127, TP53, VHL*	-	-	-	-
CHCS_C_v2	**59 genes:**	*APC, ATM, AXIN2, BAP1, BLM, BARD1, BMPR1A, BRCA1, BRCA2, BRIP1, CDH1, CDK4, CDKN2A, CHEK2, DDB2, EPCAM, ERCC2, ERCC3, ERCC4, ERCC5, FANCA, FANCC, FH, FLCN, GALNT12, HDAC2, HOXB13, MEN1, MET, MITF, MLH1, MSH2, MSH3, MSH6, MUTYH, NBN, NF1, NF2, NTHL1, PALB2, PMS2, POLD1, POLE, POLH, PTCH1, PTEN, RAD51C, RAD51D, RB1, RET, SMAD4, STK11, TP53, TSC1, TSC2, VHL, WT1, XPA, XPC*	-	-	-	-
CHCS_D_v2[b]	**84 genes:**	*ABCC9, ABRAXAS1, ACD, AIP, AKAP9, AKT1, APC, ATM, AXIN2, BAP1, BARD1, BMPR1A, BRCA1, BRCA2, BRIP1, CACNA1D, CACNB2, CDH1, CDK4, CDKN2A, CHEK2, DES, DICER1, DSP, EPCAM, FH, FLCN, GREM1, HABP2, HOXB13, MAX, MC1R, MEN1, MET, MITF, MLH1, MLH3, MRE11, MSH2, MSH3, MSH6, MUTYH, NBN, NF1, NF2, NTHL1, PALB2, PIK3CA, PMS2, PMS2CL, POLD1, POLE, POT1, PRKAR1A, PRSS1, PTCH1, PTEN, RAD50, RAD51C, RAD51D, RET, SCN5A, SDHA, SDHAF2, SDHB, SDHC, SDHD, SGCD, SLC45A2, SMAD4, SMARCB1, STK11, SUFU, TERF2IP, TERT, TMEM127, TMEM43, TNNT2, TP53, TPM1, UTY, VCL, VHL, XRCC2*	100%	99.99%	99.99%	99.45%
CHCS_AA_v1[b] Comprehensive Hereditary Cancer Solution	**117 genes:**	*ACD, AIP, AKT1, ALK, APC, ATM, AXIN2, BAP1, BARD1, BLM, BMPR1A, BRCA1, BRCA2, BRIP1, BUB1B, CASR, CDC73, CDH1, CDK4, CDKN1B, CDKN1C, CDKN2A, CEBPA, CHEK2, CREBBP, CTNNA1, DICER1, DIS3L2, EGFR, EGLN1, EPCAM, ERBB2, ERCC2, EXT1, EXT2, FANCC, FANCG, FANCM, FH, FLCN, GALNT12, GATA2, GREM1, HNF1A, HOXB13, HRAS, KIF1B, KIT, LZTR1, MAX, MC1R, MEN1, MET, MITF, MLH1, MLH3, MRE11, MSH2, MSH3, MSH6, MUTYH, NBN, NF1, NF2, NSD1, NTHL1, PALB2, PDGFRA, PHOX2B, PMS2, PMS2CL, POLD1, POLE, POLH, POT1, PRKAR1A, PRSS1, PTCH1, PTEN, RAD50, RAD51C, RAD51D, RB1, RECQL, RECQL4, RET, RHBDF2, RNF43, RPS20, RUNX1, SCG5, SDHA, SDHAF2, SDHB, SDHC, SDHD, SLX4, SMAD4, SMARCA4, SMARCB1, SMARCE1, STK11, SUFU, TERC, TERF2IP, TERT, TMEM127, TP53, TSC1, TSC2, VHL, WRN, WT1, XPA, XPC, XRCC2, YAP1*	99.46%	100%	100%	99.82%
CHCS_Y_v1[b]	**140 genes:**	*ABRAXAS1, AIP, ALK, APC, ATM, ATR, AXIN2, BAP1, BARD1, BLM, BMPR1A, BRCA1, BRCA2, BRIP1, BUB1B, CASR, CDC73, CDH1, CDK4, CDKN1B, CDKN1C, CDKN2A, CDKN2B, CEBPA, CHEK2, CTNNA1, CYLD, DDB2, DICER1, DIS3L2, DKC1, EGFR, EGLN1, EPCAM, ERCC1, ERCC2, ERCC3, ERCC4, ERCC5, EXT1, EXT2, EZH2, FAN1, FANCA, FANCB, FANCC, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, FH, FLCN, GALNT12, GATA2, GNAS, GPC3, GREM1, HDAC2, HNF1A, HOXB13, HRAS, KIF1B, KIT, LZTR1, MAX, MC1R, MEN1, MET, MITF, MLH1, MLH3, MRE11, MSH2, MSH3, MSH6, MUTYH, NBN, NF1, NF2, NHP2, NOP10, NTHL1, PALB2, PDGFRA, PHOX2B, PIK3CA, PMS1, PMS2, PMS2CL, POLD1, POLE, POLH, POT1, PRF1, PRKAR1A, PRSS1, PTCH1, PTCH2, PTEN, RAD50, RAD51C, RAD51D, RB1, RECQL4, RET, RHBDF2, RNF43, RPS20, RUNX1, SCG5, SDHA, SDHAF2, SDHB, SDHC, SDHD, SLX4, SMAD4, SMARCA4, SMARCB1, SMARCE1, SPINK1, STK11, SUFU, TERC, TERT, TINF2, TMEM127, TP53, TSC1, TSC2, TYR, VHL, WFS1, WRN, WT1, XPA, XPC, XRCC2*	100%	100%	100%	100§%
CHCS_F_v1[b]	**144 genes:**	*AIP, ALK, APC, ATM, ATR, AXIN2, BAP1, BARD1, BLM, BMPR1A, BRCA1, BRCA2, BRIP1, BUB1B, CASR, CDC73, CDH1, CDK4, CDKN1B, CDKN1C, CDKN2A, CEBPA, CEP57, CHEK2, CTC1, CTNNA1, CYLD, DDB2, DICER1, DIS3L2, DKC1, EGFR, EGLN1, EPCAM, ERCC1, ERCC2, ERCC3, ERCC4, ERCC5, EXT1, EXT2, EZH2, FAN1, FANCA, FANCB, FANCC, FANCD2, FANCE, FANCF, FANCG, FANCI, FANCL, FANCM, FH, FLCN, GAA, GALNT12, GATA2, GBA, GLA, GPC3, GREM1, HDAC2, HNF1A, HOXB13, HRAS, IDUA, KIF1B, KIT, KMT2D, LZTR1, MAX, MC1R, MDH2, MEN1, MERTK, MET, MITF, MLH1, MLH3, MRE11A, MSH2, MSH3, MSH6, MUTYH, NBN, NF1, NF2, NHP2, NOP10, NSD1, NTHL1, PALB2, PDGFRA, PHOX2B, PMS1, PMS2, POLD1, POLE, POLH, POT1, PRF1, PRKAR1A, PRSS1, PTCH1, PTCH2, PTEN, RAD50, RAD51C, RAD51D, RB1, RECQL4, RET, RHBDF2, RUNX1, SBDS, SDHA, SDHAF2, SDHB, SDHC, SDHD, SLX4, SMAD4, SMARCA4, SMARCB1, SMARCE1, STK11, SUFU, TERC, TERT_5UTR, TERT, TINF2, TMEM127, TP53, TSC1, TSC2, TYR, VHL, WRAP53, WRN, WT1, XPA, XPC, XRCC2*	100%	100%	100%	100§%

[a]Based on analysis of characterized samples using MiSeq™ sequencer. [b]Based on analysis of characterized samples using NextSeq® sequencer.

Solution	Sequencer compatibility	Product code
CHCS_O_v1	Illumina® MiSeq™, NextSeq®	**CS2341ILLRGLL01-48**
CHCS_G_v1	ThermoFisher Ion Proton, Illumina® NextSeq®	**CS2217ILLRGLL01-48**
CHCS_Z_v1	Illumina® MiSeq™	**CS2415ILLRGLL01-48**
CHCS_C_v2	Illumina® MiSeq™	**CS2357ILLRGLL01-48**
CHCS_D_v2	Illumina® MiSeq™, NextSeq®	**CS2397ILLRGLY01-48**
CHCS_AA_v1	Illumina® MiniSeq™, NextSeq®, NovaSeq™	**CS2453ILLRGLY10-48**
CHCS_Y_v1	Illumina® NextSeq®	**CS2449ILLRGLY01-48**
CHCS_F_v1	Illumina® NextSeq®	**CS2225ILLRGLL01-048**

Want to know more?

Contact us at: **info@sophiagenetics.com**