Ambry Genetics®
A TEMPUS COMPANY

CancerNext-*Expanded*®

Product Summary

As Ambry's most comprehensive pan-cancer test option for hereditary cancer predisposition, CancerNext-*Expanded* includes genes associated with a wide range of hereditary cancers such as breast, ovarian, uterine, colorectal, gastric, pancreatic, prostate, melanoma, renal, central nervous system tumors, pheochromocytoma/paraganglioma, hematologic malignancy, and other rare cancer predisposition conditions.

Guidelines Recommend Genetic Testing For Hereditary Cancer

The NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) recommend that hereditary cancer testing be considered in appropriate individuals when it is likely to impact any of following:

- a patient's cancer risk management
- a patient's cancer treatment
- the medical management of a patient's at-risk family members[1,2]

The NCCN Guidelines® also explain that because an individual's personal/family history may be explained by more than one gene or inherited cancer syndrome, multigene testing may be more efficient, cost-effective, and have a higher diagnostic yield.[1,2]

Results of Genetic Testing May Inform Personalized Medical Management

The potential benefits of genetic testing for hereditary cancer include*:

- Option to modify initial age, frequency, or modality of cancer screening
- Consideration of risk-reducing measures
- Option to tailor treatment strategies, including eligibility for clinical trials
- Ability to identify at-risk family members

If your patient has a personal and/or close family history of any of the following, they may qualify for genetic testing for hereditary cancer risk.*

CANCERS AT ANY AGE

- ☐ Male or female breast
- ☐ Ovarian
- ☐ Pancreatic
- ☐ Metastatic or High-Grade Prostate
- ☐ Colorectal
- ☐ Uterine
- ☐ Gastric

MULTIPLE

- ☐ Two primary cancers in the same person
- ☐ Three related** cancers on the same side of the family
- ☐ 10 or more colorectal polyps (adenomas)

YOUNG

- ☐ Cancers diagnosed before the age of 50 are more likely to be hereditary, but they can occur at any age.

OTHER

- ☐ Ashkenazi Jewish ancestry
- ☐ Known gene mutation in your family

** Adapted from published guidelines*
***Related cancers: BRCA1/BRCA2 - breast, ovarian prostate, male breast, and pancreas. Lynch Syndrome - colorectal, uterine, ovarian, small bowel, and stomach.*

CancerNext-*Expanded*® Genes and Associated Cancers

78 - 90 gene hereditary cancer test

Medical management guidelines available for most genes

*Ambry Clinician Management Resources (CMRs) are included with test reports and are available on our website.

GENE(S)	ASSOCIATED CANCERS**													
	Breast	Ovarian	Uterine	Colorectal & Polyposis	Pancreatic	Prostate	Gastric	Renal/ Urothelial	Endocrine	Central Nervous System	Melanoma	Heme Malignancy	Other	Recessive Disease Associated
AIP										●				
ALK										●				
*APC**				●			●		●	●			●	
*ATM**	●	●			●	●								Ataxia telangiectasia
*AXIN2**				●										
*BAP1**								●			●		●	
*BARD1**	●													
*BMPR1A**				●			●							
*BRCA1**	●	●			●	●								Fanconi anemia
*BRCA2**	●	●			●	●					●			Fanconi anemia
*BRIP1**		●												Fanconi anemia
CDC73									●				●	
*CDH1**	●						●							
CDK4											●			
*CDKN1B**									●	●				
*CDKN2A**					●					●	●			
*CEBPA**												●		
*CHEK2**	●													
CTNNA1							●							
*DDX41**												●		
DICER1		●								●				
EGFR													●	
*EPCAM**		●	●	●	●	●	●	●		●			●	CMMRD††
*ETV6**												●		
*FH**								●	●				●	FH deficiency
*FLCN**								●						
*GATA2**												●		
*GREM1**				●										
*HOXB13**						●								
KIT													●	
LZTR1										●				
*MAX**									●					
*MBD4**				●								●		
*MEN1**										●			●	
*MET**								●						
MITF											●			
*MLH1**		●	●	●	●	●	●	●		●			●	CMMRD††
*MLH3**				●†										
*MSH2**		●	●	●	●	●	●	●		●			●	CMMRD††
*MSH3**				●†										Polyposis
*MSH6**		●	●	●	●	●	●	●		●			●	CMMRD††
*MUTYH**				●†									●	Polyposis
*NF1**	●								●	●			●	
NF2										●				

GENE(S)	ASSOCIATED CANCERS**													
	Breast	Ovarian	Uterine	Colorectal & Polyposis	Pancreatic	Prostate	Gastric	Renal/ Urothelial	Endocrine	Central Nervous System	Melanoma	Heme Malignancy	Other	Recessive Disease Associated
*NTHL1**				● †										Polyposis
*PALB2**	●	●			●									Fanconi anemia
PDGFRA													●	
PHOX2B										●				
*PMS2**		●	●	●	●	●	●	●		●			●	CMMRD††
*POLD1**				●										
*POLE**				●										POLE-deficiency syndrome
POT1											●	●	●	
PRKAR1A									●	●			●	
PTCH1										●			●	
*PTEN**	●		●	●				●	●	●	●			
*RAD51C**	●	●												Fanconi anemia
*RAD51D**	●	●												
RB1										●	●		●	
*RET**									●					
*RPS20**				●										
*RUNX1**												●		
*SDHA**								●	●				●	Mitochondrial deficiency syndrome
*SDHAF2**									●					
*SDHB**								●	●				●	Mitochondrial deficiency syndrome
*SDHC**								●	●				●	
*SDHD**								●	●				●	Mitochondrial deficiency syndrome
*SMAD4**				●			●							
SMARCA4		●								●			●	
SMARCB1										●			●	
SMARCE1										●				
*STK11**	●	●	●	●	●		●						●	
SUFU										●			●	
*TMEM127**									●					
*TP53**	●			●						●		●		
*TSC1**								●		●			●	
*TSC2**								●		●			●	
*VHL**								●	●	●				Polycythemia
WT1								●					●	

Optional CancerNext-*Expanded* Add-ons:

Limited evidence genes (7): *ATRIP, EGLN1, KIF1B, PALLD, RAD51B, RNF43, TERT*
There is limited evidence to support a causal role for these genes in association with cancer predisposition.

Pancreatitis genes (5): *CFTR, CPA1, CTRC, PRSS1, SPINK1*

** *This figure depicts primary cancer associations and may not specify all gene-disease associations. Gene-disease associations and risk estimates vary from study to study, and data are rapidly evolving.*
† *Biallelic/Autosomal recessive colorectal cancer risk only*
†† *CMMRD = constitutional mismatch repair deficiency*

+RNAinsight®

Concurrent DNA/RNA genetic testing with +RNAinsight analyzes functional RNA data to help classify DNA variants. It also identifies deep-intronic mutations that may go undetected with a DNA only or reflexive RNA testing approach. As a result, diagnostic yield is higher and variant of uncertain significance rate is lower, providing clarity for patients and healthcare providers.[1] This novel functional evidence is especially important in non-White populations that have been underrepresented in research and clinical testing.

1-90 Genes

For Maximum Flexibility

Order +RNAinsight with analysis of any genes on the hereditary cancer menu*

Scan here to learn more about +RNAinsight.

Let us be your trusted partner

All hereditary cancer tests use Ambry's Classifi® program, a proprietary, knowledge-driven engine for gene classification, variant analysis & interpretation, and reporting. The Classifi program delivers the highest quality test results and ensures we leave no stone unturned in getting answers for you and your patients.

Ambry Classifi®

REFERENCES

1. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Genetic/Familial High-Risk Assessment: Breast, Ovarian, Pancreatic, and Prostate. V1.2027. ©National Comprehensive Cancer Network, Inc. 2026. All rights reserved. Accessed September 1, 2026. To view the most recent and complete version of the guideline, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way.
2. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Genetic/Familial High-Risk Assessment: Colorectal, Endometrial, Esophageal, and Gastric. V1.2026. ©National Comprehensive Cancer Network, Inc. 2026. All rights reserved. Accessed September 1, 2026. To view the most recent and complete version of the guideline, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way.
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MKT-ONCO-FLYR-20128-EN v7 11.02.26