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# RAPID qPCR TEST FOR COLON CANCER

## DIAGNOSTICS

Gene expression panel that differentiates between malignant and benign polyps for the diagnosis and treatment of colon cancer.

### TECHNOLOGY TYPE

Biomarkers  
Oncology  
Colon Cancer

### STAGE OF DEVELOPMENT

Gene expression panel  
validated with clinical samples  
by qPCR.

### IP PROTECTION

#### PCT Pending

Methods and Compositions  
for Predicting a Colon Cancer  
Subtype  
WO2017132139A1

### LEARN MORE

Reference Number: U-5988

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### TECHNOLOGY SUMMARY

Colon cancer is the second leading cause of cancer-related deaths in the United States, causing over 50,000 deaths each year. Sessile serrate colon adenoma/polyps (SSA/Ps) cause 20 to 30 percent of colon cancers. Routine screening colonoscopies help diagnose colon cancer by detecting polyps, but overlapping features make differentiating between malignant (SSA/P) and benign hyperplastic (HP) polyps difficult. In effect, patients falsely diagnosed with hyperplastic polyps fail to undergo necessary follow-on surveillance for colon cancer.

A newly derived panel of expressed genes distinguishes between SSA/Ps and HPs, and detects which polyps produce a higher risk of colon cancer. The seven gene panel includes twenty-eight markers associated with cancerous SSA/Ps, resulting in lower detection limits and higher sensitivity. The panel also acts as a more effective colon cancer screening method by identifying colon cancer inducing genes that were discovered via RNA-seq analysis. Improved polyp classification has immediate clinical and research significance, with the potential to become a gold standard diagnostic.

### FEATURES AND BENEFITS

- Provides the first reliable molecular test that differentiates SSA/Ps from benign polyps.
- Improves diagnostic sensitivity and specificity to over 85 percent.
- Enables better therapeutic strategies and appropriate disease surveillance by accurately predicting cancer risk.

### RECENT PUBLICATIONS

Kanth, P., Bronner, M.P., Boucher, K.M., Burt, R.W., Neklason, D.W., Hagedorn, C.H., Delker, D.A. (2016). Gene signature in sessile serrated polyps identifies colon cancer subtype. *Cancer Prevention Research (Philadelphia PA)*. 9(6): 456-65. doi: [10.1158/1940-6207.CAPR-15-0363](https://doi.org/10.1158/1940-6207.CAPR-15-0363).

### INVENTOR PROFILE

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