

Client & Specimen Information

Name	ID NO.	
D.O.B (YYYY-MM-DD)	Gender	
Family History		
Referral Hospital/Clinic	Referral Doctor	
Stool Specimen ID No.	Specimen Type	Stool
Specimen Collection Date (YYYY-MM-DD)	Specimen Arrival Lab Date (YYYY-MM-DD)	

Non-invasive Colorectal Cancer Test Result	Positive, further diagnostic tests recommended
Gene Markers	CT Value
<i>SDC2</i>	
<i>ADHFE1</i>	
<i>PPP2R5C</i>	

Interpretation and suggestion:

A "Positive" result indicates that abnormal methylation signal of target genes was detected in this stool sample, and the chance that a person has colorectal cancer (CRC) or an advanced adenoma is high. It is recommended that you should consult your doctor for further diagnostic examination such as colonoscopy, and confirm any pathological changes of your colon and rectum.

About the test and result

- COLOTECT is a non-invasive, highly sensitive test for colorectal cancer (CRC) and precancerous lesions. Human DNA is extracted from self-collected stool specimen and used for the multiplex methylation-specific qPCR to detect abnormal methylation of gene markers (*SDC2*, *ADHFE1*, and *PPP2R5C*) associated with CRC tumorigenesis.
- This report is for physician's reference only and not evidence for diagnosis. A "Positive" result should be followed up by further diagnostic tests. A "Negative" result does not rule out CRC or an advanced adenoma, and it should not be used as the sole basis for treatment or patient management decisions.
- This report represents the laboratory finding(s) for the corresponding specimen only.

Disclaimer:

- There may be false positive result or false negative result due to individual differences among subjects and technical limitations.
- Possibilities of inaccurate results include but are not limited to: improper sample collection, improper transportation and processing, and low human DNA content in the sample.
- The results of this test will not be disclosed to other unrelated third parties without authorization, except for the cases where laws and regulations require disclosure.

References:

- Kim JH, Park SC. Syndecan-2 Methylation as a New Biomarker for Early Detection of Colorectal Neoplasm. *Gut Liver*. 2018;12(5):479-480.
- Oh TJ, Oh HI, Seo YY, Jeong D, Kim C, Kang HW, et al. Feasibility of quantifying SDC2 methylation in stool DNA for early detection of colorectal cancer. *Clin Epigenetics*. 2017;9:126.
- Han YD, Oh TJ, Chung TH, Jang HW, Kim YN, An S, et al. Early detection of colorectal cancer based on presence of methylated syndecan-2 (SDC2) in stool DNA. *Clin Epigenetics*. 2019;11(1):51.
- Hu YH, Ma S, Zhang XN, et al. Hypermethylation Of ADHFE1 Promotes The Proliferation Of Colorectal Cancer Cell Via Modulating Cell Cycle Progression. *Onco Targets Ther*. 2019;12:8105-8115. Published 2019 Oct 4. doi:10.2147/OTT.S223423
- Tae CH, Ryu KJ, Kim SH, Kim HC, Chun HK, Min BH, et al. Alcohol dehydrogenase, iron containing, 1 promoter hypermethylation associated with colorectal cancer differentiation. *BMC Cancer*. 2013;13:142.
- Naumov VA, Genozov EV, Zaharjevskaya NB, Matushkina DS, Larin AK, Chernyshov SV, et al. Genome-scale analysis of DNA methylation in colorectal cancer using Infinium HumanMethylation450 BeadChips. *Epigenetics*. 2013;8(9):921-34.
- Fan, J., Li, J., Guo, S. et al. Genome-wide DNA methylation profiles of low- and high-grade adenoma reveals potential biomarkers for early detection of colorectal carcinoma. *Clin Epigenet*, 2020, 12, 56
- Veerle JANSSENS, Jozef GORIS; Protein phosphatase 2A: a highly regulated family of serine/threonine phosphatases implicated in cell growth and signalling. *Biochem J* 1 February 2001; 353 (3): 417-439.
- Li HH, Cai X, Shouse GP, Piluso LG, Liu X. A specific PP2A regulatory subunit, B56gamma, mediates DNA damage-induced dephosphorylation of p53 at Thr55. *EMBO J*. 2007;26(2):402-411.
- Galamb O, Kalmar A, Peterfia B, Csabai I, Bodor A, Ribli D, et al. Aberrant DNA methylation of WNT pathway genes in the development and progression of CIMP-negative colorectal cancer. *Epigenetics*. 2016;11(8):588-602.

Approved Signatory:

Report Date:

(YYYY-MM-DD)

Client & Specimen Information

Name	ID NO.	
D.O.B (YYYY-MM-DD)	Gender	
Family History		
Referral Hospital/Clinic	Referral Doctor	
Stool Specimen ID No.	Specimen Type	Stool
Specimen Collection Date (YYYY-MM-DD)	Specimen Arrival Lab Date (YYYY-MM-DD)	

Non-invasive Colorectal Cancer Test Result

Inconclusive, resampling is recommended

Interpretation and suggestion:

The testing could not be performed since the human DNA content in your stool sample is lower than the limit of detection. To ensure the accuracy of the test results, please recollect fecal samples and submit them again. We are sorry for any inconvenience caused.

About the test and result

1. COLOTECT is a non-invasive, highly sensitive test for colorectal cancer (CRC) and precancerous lesions. Human DNA is extracted from self-collected stool specimen and used for the multiplex methylation-specific qPCR to detect abnormal methylation of gene markers (*SDC2*, *ADHFE1*, and *PPP2R5C*) associated with CRC tumorigenesis.
2. This report is for physician's reference only and not evidence for diagnosis. A "Positive" result should be followed up by further diagnostic tests. A "Negative" result does not rule out CRC or an advanced adenoma, and it should not be used as the sole basis for treatment or patient management decisions.
3. This report represents the laboratory finding(s) for the corresponding specimen only.

Disclaimer:

1. There may be false positive result or false negative result due to individual differences among subjects and technical limitations.
2. Possibilities of inaccurate results include but are not limited to: improper sample collection, improper transportation and processing, and low human DNA content in the sample.
3. The results of this test will not be disclosed to other unrelated third parties without authorization, except for the cases where laws and regulations require disclosure.

References:

1. Kim JH, Park SC. Syndecan-2 Methylation as a New Biomarker for Early Detection of Colorectal Neoplasm. *Gut Liver*. 2018;12(5):479-480.
2. Oh TJ, Oh HI, Seo YY, Jeong D, Kim C, Kang HW, et al. Feasibility of quantifying SDC2 methylation in stool DNA for early detection of colorectal cancer. *Clin Epigenetics*. 2017;9:126.
3. Han YD, Oh TJ, Chung TH, Jang HW, Kim YN, An S, et al. Early detection of colorectal cancer based on presence of methylated syndecan-2 (SDC2) in stool DNA. *Clin Epigenetics*. 2019;11(1):51.
4. Hu YH, Ma S, Zhang XN, et al. Hypermethylation Of ADHFE1 Promotes The Proliferation Of Colorectal Cancer Cell Via Modulating Cell Cycle Progression. *Onco Targets Ther*. 2019;12:8105-8115. Published 2019 Oct 4. doi:10.2147/OTT.S223423
5. Tae CH, Ryu KJ, Kim SH, Kim HC, Chun HK, Min BH, et al. Alcohol dehydrogenase, iron containing, 1 promoter hypermethylation associated with colorectal cancer differentiation. *BMC Cancer*. 2013;13:142.
6. Naumov VA, Generozov EV, Zaharjevskaya NB, Matushkina DS, Larin AK, Chernyshov SV, et al. Genome-scale analysis of DNA methylation in colorectal cancer using Infinium HumanMethylation450 BeadChips. *Epigenetics*. 2013;8(9):921-34.
7. Fan, J., Li, J., Guo, S. et al. Genome-wide DNA methylation profiles of low- and high-grade adenoma reveals potential biomarkers for early detection of colorectal carcinoma. *Clin Epigenet*, 2020, 12, 56
8. Veerle JANSSENS, Jozef GORIS; Protein phosphatase 2A: a highly regulated family of serine/threonine phosphatases implicated in cell growth and signalling. *Biochem J* 1 February 2001; 353 (3): 417-439.
9. Li HH, Cai X, Shouse GP, Piluso LG, Liu X. A specific PP2A regulatory subunit, B56gamma, mediates DNA damage-induced dephosphorylation of p53 at Thr55. *EMBO J*. 2007;26(2):402-411.
10. Galamb O, Kalmar A, Peterfia B, Csabai I, Bodor A, Ribli D, et al. Aberrant DNA methylation of WNT pathway genes in the development and progression of CIMP-negative colorectal cancer. *Epigenetics*. 2016;11(8):588-602.

Approved Signatory:

Report Date:

(YYYY-MM-DD)

Client & Specimen Information

Name	ID NO.	
D.O.B (YYYY-MM-DD)	Gender	
Family History		
Referral Hospital/Clinic	Referral Doctor	
Stool Specimen ID No.	Specimen Type	Stool
Specimen Collection Date (YYYY-MM-DD)	Specimen Arrival Lab Date (YYYY-MM-DD)	

Non-invasive Colorectal Cancer Test Result	Negative
Gene Markers	CT Value
<i>SDC2</i>	
<i>ADHFE1</i>	
<i>PPP2R5C</i>	

Interpretation and suggestion:

A "Negative" result indicates that no abnormal methylated signal of target genes was detected in this stool sample, and the chance that a person has colorectal cancer (CRC) or an advanced adenoma is low. It is recommended that you maintain a healthy lifestyle and perform colorectal cancer test regularly.

About the test and result

- COLOTECT is a non-invasive, highly sensitive test for colorectal cancer (CRC) and precancerous lesions. Human DNA is extracted from self-collected stool specimen and used for the multiplex methylation-specific qPCR to detect abnormal methylation of gene markers (*SDC2*, *ADHFE1*, and *PPP2R5C*) associated with CRC tumorigenesis.
- This report is for physician's reference only and not evidence for diagnosis. A "Positive" result should be followed up by further diagnostic tests. A "Negative" result does not rule out CRC or an advanced adenoma, and it should not be used as the sole basis for treatment or patient management decisions.
- This report represents the laboratory finding(s) for the corresponding specimen only.

Disclaimer:

- There may be false positive result or false negative result due to individual differences among subjects and technical limitations.
- Possibilities of inaccurate results include but are not limited to: improper sample collection, improper transportation and processing, and low human DNA content in the sample.
- The results of this test will not be disclosed to other unrelated third parties without authorization, except for the cases where laws and regulations require disclosure.

References:

- Kim JH, Park SC. Syndecan-2 Methylation as a New Biomarker for Early Detection of Colorectal Neoplasm. *Gut Liver*. 2018;12(5):479-480.
- Oh TJ, Oh HI, Seo YY, Jeong D, Kim C, Kang HW, et al. Feasibility of quantifying SDC2 methylation in stool DNA for early detection of colorectal cancer. *Clin Epigenetics*. 2017;9:126.
- Han YD, Oh TJ, Chung TH, Jang HW, Kim YN, An S, et al. Early detection of colorectal cancer based on presence of methylated syndecan-2 (SDC2) in stool DNA. *Clin Epigenetics*. 2019;11(1):51.
- Hu YH, Ma S, Zhang XN, et al. Hypermethylation Of ADHFE1 Promotes The Proliferation Of Colorectal Cancer Cell Via Modulating Cell Cycle Progression. *Onco Targets Ther*. 2019;12:8105-8115. Published 2019 Oct 4. doi:10.2147/OTT.S223423
- Tae CH, Ryu KJ, Kim SH, Kim HC, Chun HK, Min BH, et al. Alcohol dehydrogenase, iron containing, 1 promoter hypermethylation associated with colorectal cancer differentiation. *BMC Cancer*. 2013;13:142.
- Naumov VA, Genozov EV, Zaharjevskaya NB, Matushkina DS, Larin AK, Chernyshov SV, et al. Genome-scale analysis of DNA methylation in colorectal cancer using Infinium HumanMethylation450 BeadChips. *Epigenetics*. 2013;8(9):921-34.
- Fan, J., Li, J., Guo, S. et al. Genome-wide DNA methylation profiles of low- and high-grade adenoma reveals potential biomarkers for early detection of colorectal carcinoma. *Clin Epigenet*, 2020, 12, 56
- Veerle JANSSENS, Jozef GORIS; Protein phosphatase 2A: a highly regulated family of serine/threonine phosphatases implicated in cell growth and signalling. *Biochem J* 1 February 2001; 353 (3): 417-439.
- Li HH, Cai X, Shouse GP, Piluso LG, Liu X. A specific PP2A regulatory subunit, B56gamma, mediates DNA damage-induced dephosphorylation of p53 at Thr55. *EMBO J*. 2007;26(2):402-411.
- Galamb O, Kalmar A, Peterfia B, Csabai I, Bodor A, Ribli D, et al. Aberrant DNA methylation of WNT pathway genes in the development and progression of CIMP-negative colorectal cancer. *Epigenetics*. 2016;11(8):588-602.

Approved Signatory:

Report Date:

(YYYY-MM-DD)