

Table S1 Baseline information of patient cohorts in this study

Discovery cohort	Abnormal(C+A)	Normal(N)
	Num	
Total	61	31
Male	36	18
Female	25	13
Age		
Average±SD	59.98±6.42	53.45±5.59
Stage		
I	1	
II	13	
III	20	
IV	12	
Adenoma	12	
No Record	3	

Modeling cohort	Abnormal (C+A)	Normal(N)
	Num	
Total	120	72
Male	79	31
Female	41	41
Age		
Average±SD	59.88±6.5	50.08±4.4
Stage		
I	9	
II	12	
III	30	
IV	19	
Adenoma	13	
No Record	37	

Validation cohort

	Abnormal(C+A)	Normal(N)
Num		
Total	103	53
Male	74	20
Female	29	33
Age		
Average±SD	58.15±7.2	53.79±7.3
CEA		
Average±SD	88.59±797.0	1.84±1.1
Median±SD	2.96±797.0	1.56±1.1
Stage		
I	8	
II	9	
III	18	
IV	20	
Adenoma	19	
No Record	29	

Serum and feces matched cohort

	Abnormal (C+A)	Normal(N)
Num		
Total	33	11
Male	21	8
Female	12	3
Age		
Average±SD	59.15±8.1	48.09±7.2
Adenoma	2	
CRC	31	