

Table 1. The distribution of genotypes and the analysis of the odds ratio (OR) for gene-gene interactions: 51Gln/His *APEX* – 64Ile/Val *APEX* in patients with colorectal cancer (CRC) and the control group.

Genotype	Patients n=302	Controls n=302	OR (95% CI)	p
Gln/Gln-Ile/Ile	22	29	1 (ref)	-
Gln/Gln-Ile/Val	37	49	0.995 (0.495-2.003)	1.000
Gln/Gln-Val/Val	8	14	0.753 (0.269-2.111)	0.590
Gln/His-Ile/Ile	61	42	1.915 (0.971-3.777)	0.059
Gln/His-Ile/Val	84	87	1.273 (0.678-2.390)	0.454
Gln/His-Val/Val	55	32	2.266 (1.120-4.585)	0.022
His/His-Ile/Ile	9	6	1.977 (0.612-6.385)	0.251
His/His-Ile/Val	25	22	1.498 (0.675-3.324)	0.320
His/His-Val/Val	1	21	-	-

Table 2. The distribution of genotypes and the analysis of the odds ratio (OR) for gene-gene interactions: 51Gln/His *APEX* – 148Asp/Glu *APEX* in patients with colorectal cancer (CRC) and the control group.

Genotype	Patients n=301	Controls n=301	OR (95% CI)	p
Gln/Gln-Asp/Asp	23	27	1 (ref)	-
Gln/Gln-Asp/Glu	39	54	0.848 (0.424-1.694)	0.639
Gln/Gln-Glu/Glu	3	10	-	-
Gln/His-Asp/Asp	19	33	0.676 (0.306-1.493)	0.332
Gln/His-Asp/Glu	174	102	2.003 (1.091-3.676)	0.023
Gln/His-Glu/Glu	8	26	0.361 (0.137-0.951)	0.036
His/His-Asp/Asp	6	28	0.252 (0.089-0.714)	0.007
His/His-Asp/Glu	20	2	-	-
His/His-Glu/Glu	9	19	0.556 (0.211-1.465)	0.233

Table 3. The distribution of genotypes and the analysis of the odds ratio (OR) for gene-gene interactions: 51Gln/His *APEX* – 23Gly/Ala *XPA* in patients with colorectal cancer (CRC) and the control group.

Genotype	Patients n=302	Controls n=302	OR (95% CI)	p
Gln/Gln-Gly/Gly	21	27	1 (ref)	-
Gln/Gln-Gly/Ala	35	43	1.047 (0.507-2.159)	0.888
Gln/Gln-Ala/Ala	9	22	0.526 (0.201-1.377)	0.188
Gln/His-Gly/Gly	6	35	0.220 (0.078-0.622)	0.003
Gln/His-Gly/Ala	193	98	2.532 (1.362-4.707)	0.003
Gln/His-Ala/Ala	4	28	-	-
His/His-Gly/Gly	2	32	-	-
His/His-Gly/Ala	30	8	4.821 (1.835-12.670)	0.001
His/His-Ala/Ala	2	9	-	-

Table 4. The distribution of genotypes and the analysis of the odds ratio (OR) for gene-gene interactions: 51Gln/His *APEX* – 689Ser/Arg *ERCC4* in patients with colorectal cancer (CRC) and the control group.

Genotype	Patients n=302	Controls n=302	OR (95% CI)	p
Gln/Gln-Ser/Ser	31	47	1 (ref)	-
Gln/Gln-Ser/Arg	24	36	1.011 (0.508-2.010)	1.000
Gln/Gln-Arg/Arg	12	9	2.022 (0.762-5.365)	0.153
Gln/His-Ser/Ser	37	29	1.934 (0.995-3.761)	0.051
Gln/His-Ser/Arg	123	108	1.340 (0.994-1.806)	0.039
Gln/His-Arg/Arg	39	24	2.464 (1.247-4.870)	0.009
His/His-Ser/Ser	22	23	1.450 (0.692-3.039)	0.325
His/His-Ser/Arg	6	16	0.569 (0.201-1.612)	0.286
His/His-Arg/Arg	8	10	1.213 (0.431-3.413)	0.718

Table 5. The distribution of genotypes and the analysis of the odds ratio (OR) for gene-gene interactions: 64Ile/Val *APEX* – 148Asp/Glu *APEX* in patients with colorectal cancer (CRC) and the control group.

Genotype	Patients n=301	Controls n=301	OR (95% CI)	p
Ile/Ile-Asp/Asp	34	37	1 (ref)	-
Ile/Ile-Asp/Glu	47	29	1.764 (0.915-3.401)	0.089
Ile/Ile-Glu/Glu	11	11	1.088 (0.418-2.833)	0.862
Ile/Val-Asp/Asp	10	27	0.403 (0.170-0.955)	0.036
Ile/Val-Asp/Glu	126	111	1.235 (0.726-2.101)	0.435
Ile/Val-Glu/Glu	9	20	0.490 (0.196-1.222)	0.122
Val/Val-Asp/Asp	4	24	-	-
Val/Val-Asp/Glu	59	18	3.567 (1.765-7.211)	0.0003
Val/Val-Glu/Glu	1	24	-	-

Table 6. The distribution of genotypes and the analysis of the odds ratio (OR) for gene-gene interactions: 64Ile/Val *APEX* – 23Gly/Ala *XPA* in patients with colorectal cancer (CRC) and the control group.

Genotype	Patients n=304	Controls n=304	OR (95% CI)	p
Ile/Ile-Gly/Gly	19	21	1 (ref)	-
Ile/Ile-Gly/Ala	64	37	1.912 (0.911-4.011)	0.084
Ile/Ile-Ala/Ala	8	20	0.442 (0.158-1.236)	0.117
Ile/Val-Gly/Gly	9	37	0.269 (0.103-0.700)	0.006
Ile/Val-Gly/Ala	132	99	1.474 (0.752-2.889)	0.258
Ile/Val-Ala/Ala	6	23	0.288 (0.097-0.859)	0.022
Val/Val-Gly/Gly	2	37	-	-
Val/Val-Gly/Ala	62	14	4.895 (2.093-11.445)	0.0001
Val/Val-Ala/Ala	2	16	-	-

Table 7. The distribution of genotypes and the analysis of the odds ratio (OR) for gene-gene interactions: 64Ile/Val *APEX* – 689Ser/Arg *ERCC4* in patients with colorectal cancer (CRC) and the control group.

Genotype	Patients n=304	Controls n=304	OR (95% CI)	p
Ile/Ile-Ser/Ser	29	33	1 (ref)	-
Ile/Ile-Ser/Arg	43	34	1.439 (0.735-2.817)	0.288
Ile/Ile-Arg/Arg	19	11	1.966 (0.803-4.808)	0.136
Ile/Val-Ser/Ser	38	34	1.272 (0.644-2.511)	0.488
Ile/Val-Ser/Arg	88	107	0.936 (0.528-1.660)	0.823
Ile/Val-Arg/Arg	21	18	1.328 (0.595-2.964)	0.488
Val/Val-Ser/Ser	25	34	0.837 (0.408-1.716)	0.624
Val/Val-Ser/Arg	21	19	1.258 (0.567-2.789)	0.572
Val/Val-Arg/Arg	20	14	1.626 (0.698-3.787)	0.258

Table 8. The distribution of genotypes and the analysis of the odds ratio (OR) for gene-gene interactions: 148Asp/Glu *APEX* – 23Gly/Ala *XPA* in patients with colorectal cancer (CRC) and the control group.

Genotype	Patients n=301	Controls n=301	OR (95% CI)	p
Asp/Asp-Gly/Gly	18	16	1 (ref)	-
Asp/Asp-Gly/Ala	26	58	0.399 (0.176-0.902)	0.025
Asp/Asp-Ala/Ala	6	14	0.381 (0.118-1.227)	0.102
Asp/Glu-Gly/Gly	8	46	0.155 (0.056-0.424)	0.0001
Asp/Glu-Gly/Ala	218	81	2.392 (1.164-4.915)	0.015
Asp/Glu-Ala/Ala	4	31	-	-
Glu/Glu-Gly/Gly	4	32	-	-
Glu/Glu-Gly/Ala	11	9	1.086 (0.358-3.293)	0.888
Glu/Glu-Ala/Ala	6	14	0.381 (0.118-1.227)	0.102

Table 9. The distribution of genotypes and the analysis of the odds ratio (OR) for gene-gene interactions: 148Asp/Glu *APEX* – 689Ser/Arg *ERCC4* in patients with colorectal cancer (CRC) and the control group.

Genotype	Patients n=301	Controls n=301	OR (95% CI)	p
Asp/Asp-Ser/Ser	14	27	1 (ref)	-
Asp/Asp-Ser/Arg	21	48	0.844 (0.370-1.924)	0.689
Asp/Asp-Arg/Arg	13	13	1.929 (0.707-5.263)	0.198
Asp/Glu-Ser/Ser	69	49	2.716 (1.293-5.704)	0.007
Asp/Glu-Ser/Arg	126	82	2.963 (1.467-5.985)	0.002
Asp/Glu-Arg/Arg	37	27	2.643 (1.171-5.965)	0.018
Glu/Glu-Ser/Ser	8	25	0.617 (0.221-1.720)	0.354
Glu/Glu-Ser/Arg	4	27	-	-
Glu/Glu-Arg/Arg	9	3	-	-

Table 10. The distribution of genotypes and the analysis of the odds ratio (OR) for gene-gene interactions: 23Gly/Ala *XPA* – 689Ser/Arg *ERCC4* in patients with colorectal cancer (CRC) and the control group.

Genotype	Patients n=304	Controls n=304	OR (95% CI)	p
Gly/Gly-Ser/Ser	12	21	1 (ref)	-
Gly/Gly-Ser/Arg	13	49	0.464 (0.182-1.184)	0.105
Gly/Gly-Arg/Arg	6	25	0.420 (0.135-1.312)	0.130
Gly/Ala-Ser/Ser	76	57	2.333 (1.061-5.131)	0.032
Gly/Ala-Ser/Arg	135	77	3.068 (1.431-6.577)	0.003
Gly/Ala-Arg/Arg	47	16	5.141 (2.073-12.749)	0.0003
Ala/Ala-Ser/Ser	4	23	-	-
Ala/Ala-Ser/Arg	3	34	-	-
Ala/Ala-Arg/Arg	8	2	-	-