

### **Polymorphisms of CD44 rs187115 as a Predictive Biomarker in Early Colorectal Cancer Diagnostic**

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#### **Abstract**

*Introduction:* Colorectal cancer (CRC) has exhibited an increasing incidence worldwide in recent years, underscoring the importance of early diagnosis methods. This study aimed to assess the influence of CD44 gene polymorphism rs187115 on CRC susceptibility.

*Material and Methods:* The study encompassed 470 CRC patients and 165 healthy controls. Genotyping of all biological blood samples was conducted using the TaqMan assay on the ABI 7500 Real Time PCR System (Applied Biosystems, USA).

*Results:* The genotyping revealed that carriers of the variant G allele, including the genotypes AG and GG, exhibited a heightened risk of CRC occurrence, with an odds ratio (OR) of 1.89 (95% confidence interval [CI] = 1.57-1.97; p = 0.047) compared to those carrying the AA genotype.

*Conclusions:* The findings underscore the potential utility of CD44 rs187115 polymorphisms as a novel predictive biomarker for CRC prognosis.

**Key words:** colorectal cancer (CRC), single nucleotide polymorphisms (SNP), CD44, rs187115, biomarker