



# IGFBP-3 A-202C and C2133G polymorphisms and colorectal cancer risk: a meta-analysis of case-control studies

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**ABSTRACT.** Recent evidence suggests that genetic variations in the IGFBP-3 gene may impact susceptibility to colorectal cancer, but individually published results are inconclusive. Our meta-analysis was aimed at providing a more precise estimation of these associations. An extensive literature search was conducted for appropriate articles published before May 1, 2013. This meta-analysis was performed using the STATA 12.0 software. The crude odds ratios (OR) with 95% confidence interval (CI) were calculated. Eleven case-control studies were included with a total of 11,895 colorectal cancer patients and 17,147 healthy controls. Our meta-analysis indicated that the G variant of IGFBP-3 C2133G polymorphism may be associated with increased colorectal cancer risk. However, no statistically significant association was noted between IGFBP-3 A-202C polymorphism and colorectal cancer risk. No publication bias was detected in this meta-analysis. The current meta-analysis suggests that the IGFBP-3 C2133G polymorphism may confer susceptibility to colorectal cancer. The G

variant of the IGFBP-3 C2133G polymorphism may serve as a useful biomarker for predicting the risk of colorectal cancer.

**Key words:** Colorectal cancer; Polymorphism; IGFBP-3; Meta-analysis; Meta-regression