

# TBX21-1993T/C polymorphism association with Th1 and Th17 response at periapex and with periapical lesions development risk

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©2018 Society for Leukocyte Biology TBX21-1993T/C (rs4794067) polymorphism increases the transcriptional activity of the Tbx21, essential for interferon gamma (IFN $\gamma$ ) transcription, but its functional impact on development Th1- response in vivo remains unclear, as well its potential influence over inflammatory osteolytic conditions, such as periapical lesions. Therefore, this study comprises a case-control and functional investigation of Tbx21 genetic variations impact on Th1 response in vivo and in vitro, and its impact on periapical lesions risk and outcome, performed with a population of healthy controls (H; N = 283) and patients presenting periapical lesions (L; N = 188) or deep caries (DC; N = 152). TBX21-1993T/C genotyping demonstrated that the polymorphic allele C, as well TC/TC+CC genotypes, was significantly less frequent in the L patients compared to H and DC groups. Additionally, gene expression analysis demonstrates that T-cell-specific T-box transcription factor (Tbet) and I