

PD-L1 gene polymorphisms and low serum level of PD-L1 protein are associated to type 1 diabetes in Chile

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© 2014 John Wiley & Sons, Ltd. Introduction: Type 1 diabetes (T1D) has a complex etiology in which genetic and environmental factors are involved, whose interactions have not yet been completely clarified. In this context, the role in PD-1 pathway and its ligands 1 and 2 (PD-L1 and PD-L2) have been proposed as candidates in several autoimmune diseases. The aim of this work was to determine the allele and haplotype frequency of six gene polymorphisms of PD-ligands (PD-L1 and PD-L2) in Chilean T1D patients and their effect on serum levels of PD-L1 and autoantibody profile (GAD65 and IA2). Methods: This study cohort comprised 205 T1D patients and 205 normal children. We performed genotypic analysis of PD-L1 and PD-L2 genes by TaqMan method. Determination of anti-GAD65 and anti-IA-2 autoantibodies was performed by ELISA. The PD-L1 serum levels were measured. Results: The allelic distribution of PD-L1 variants (rs2297137 and rs4143815) showed differences between T1D patients and controls (p