Table S1. Molecular mimicry of SARS-CoV-2 and the pathogenesis of autoimmune diseases

Association with T1DM onset	Key Findings	References
Yes	The researchers found shared pentapeptides between four distinct autoantigens associated with diabetes: Islet cell autoantigen 1 (Q05084), protein tyrosine-phosphatase receptor-type N (Q16849), glutamate decarboxylase (Q99259), Carboxypeptidase H (P16870) and the Spike protein of SARS-CoV-2 (UniProt, Id = P0DTC2). This discovery suggests a molecular commonality between certain components involved in diabetes and the viral Spike protein, indicating a potential link or interaction that could have implications for the immune response and diabetes-related processes during a SARS-CoV-2 infection. Further research is needed to elucidate the significance of these shared pentapeptides in the context of diabetes and COVID-19.	Churilov et al. (2022)
No	The researchers demonstrated that a specific motif, TQLPP, present in the Spike protein of the virus, shares antibody binding properties with thrombopoietin. Additionally, the ELDKY motif is found in various human proteins, including PRKG1, associated with platelet activation and calcium regulation, and tropomyosin, linked to cardiac disease. This suggests a potential cross-reactivity where antibodies produced against the Spike protein might also interact with these human proteins, raising concerns about the broader impact of the immune response and its potential involvement in platelet activation and cardiac issues.	Nunez-Castilla et al. (2022)
Yes	The authors highlighted a potential resemblance in the amino acid sequences of human insulin (represented by the code 4F0N) and glutamic acid decarboxylase-65 (GAD65, represented by the code 2OKK) with certain proteins in SARS-CoV-2, specifically the Spike protein (represented by the code 6ZB5). This observation suggests a molecular similarity that could have implications for the immune system's response, potentially leading to cross-reactivity between antibodies targeting human insulin or GAD65 and certain proteins of the SARS-CoV-2 virus, particularly the Spike protein. Further investigation is needed to understand the immunological consequences of such sequence similarities.	de Oliveira et al. (2021)
No	The authors identified 136 alignments of 6–23 amino acids in 129 human proteins that are immunologically likely to be cross-reactive with SARS-CoV-2. This suggests that certain parts of these human proteins share similarities with the virus, raising the possibility that the immune system might react to both the virus and these human proteins due to these shared amino acid sequences. This finding underscores the complexity and interconnectedness of the immune response in the context of SARS-CoV-2 infection.	Moody et al. (2021)