

**THE ROLE AND EXPRESSION OF CD27 AND CD70
LYMPHOCYTES IN THE HUMAN TONSIL**

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ABSTRACT

In this study, we investigated the expression and function of CD27 and CD70 in the human tonsil. We found that IgG production was significantly reduced after the administration of anti-CD27 and anti-CD70 antibodies in the T cell dependent B cell activation system, suggesting the involvement of CD27/CD70 in the production of IgG. In addition, the amounts of peripheral and tonsillar CD4⁺CD27⁺ cells were almost identical, whereas the expression of CD4⁺CD27⁻ cells was higher (4.9%) in tonsil than in peripheral blood (2.4%). Furthermore, anti-CD27 antibody and anti-CD4 antibody-positive cells were found mainly in the interfollicular region, and a small number of this cell population was observed in both germinal center (GC) and mantle. Double-staining showed that the germinal center was almost completely composed of CD4⁺CD27⁺ cells. In contrast to CD27 cells, only a small number of CD70⁺ cells were present in the follicles. Moreover, anti-CD19 antibody, a B cell marker, was stained in the GC and mantle zone, and CD19⁺CD27⁺ cells were observed in the GC close to the mantle. The above findings favor the involvement and role of CD27/CD70 in the T-B cell interaction by inducing IgG production and increasing memory cell (CD4⁺ CD27⁻) number in the tonsil.