

The role of NFκB in T-lymphocyte development and function

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Initially identified as a nuclear factor in B cells, the family of NFκB transcription factors has since been found to operate in almost all cell types, regulating the transcription of a wide range of target genes. The NFκB signaling pathway is of particular importance to T lymphocytes, playing a prominent role in both T cell development and function. This review will focus on the current understanding of the roles of NFκB during thymic T cell development, with an emphasis on some of the emerging roles for NFκB signalling in regulating the development of non-conventional thymocyte lineages. We will also evaluate the function of NFκB signalling in the polarization of T-helper subsets in the periphery, and how NFκB intersects with other T cell-intrinsic pathways through mechanisms of signaling crosstalk. Dysregulated NFκB signalling is implicated in numerous disease states, and a thorough understanding of NFκB function during different phases of T cell development and function will be vital for optimal targeting in a therapeutic setting.

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