

Manipulation of co-signal pathways to enhance cancer vaccines

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Abstract

Antigen-specific T-cell responses are controlled and fine-tuned by co-signaling molecules on cell surface. While the CD80/CD86/CD28/CTLA-4 pathway is found to mainly regulate the priming phase of a T-cell response, recent studies demonstrate that differentiation, effector and memory phases of a T-cell response are controlled by other co-signaling pathways. I will focus the discussion in molecular and functional aspects of a more recently identified pathway, B7-H1/B7-DC/PD-1, as well as their implications in the development of cancer vaccines and immunotherapy.