

Activation of T Lymphocytes

Chapter 9

I. Introduction

A. recognizing Ag twice

1. Naive T cells = "resting state"
2. Activated T cells
3. Effector T cells & Memory T cells
 - a. CD4⁺ = helper T cells
 - b. CD8⁺ = Cytotoxic T Lymphocytes (CTLs)

B. Decline

II. Signals

A. 1^o

B. 2^o = costimulators

- a. costimulation
 1. cell surface
 - a. on T cell = CD28
 - b. on APC - B7
 - c. other receptors
 2. cytokines
 - a. IL-2

III. Activated T cell responses

A. Cytokines secretion

B. proliferation

C. differentiation into effector & memory T cells

IV. Memory T cells

A. Background

B. Properties

1. prolonged survival
2. respond rapidly
3. number
4. migrate to any tissue
5. less dependent of costimulation
6. always undergoing a slow proliferation
7. generate new effector T cells