Differences in Stimulation of CD45+ Cells from Mouse Spleen Population Enriched in Dendritic Cells Depending on the Virulence of Herpes Simplex Virus Type 1 Strains

MAGDALENA RECHNIO, JOANNA SIENNICKA, WŁODZIMIERZ GUT and BOGUMIŁA LITWIŃSKA

National Institute of Hygiene, Department of Virology, Warsaw, Poland

Received in revised form 8 July 2004

Abstract

The interaction of CD28 with one of the B7 molecules (CD80 and CD86) on professional antigen-presenting cells (APC) is generally considered to be the most important co-stimulatory signal for T cell activation. Several lines of evidence suggest that dendritic cells (DC), the most potent antigen presenting cells known, play a role in the immunological control of herpes simplex virus (HSV) infections. The fact that CD86 is strongly up-regulated together with other co-stimulatory molecules during DC maturation suggests that it plays an important role in induction of immune response. To determine the effect of virulence on up-regulation of CD86, we stimulated population of spleen cells enriched in dendritic cells by HSV-1 strains characterised by different pathogenicity. We analysed cells, which express CD45 molecule. HSV-1 ts, earlier described as less virulent for mice, stimulated an increased expression of co-stimulatory molecule CD86 than wild strain did.

Key words: CD45+ cells, immune stimulation, HSV-1