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[\[PDF \(1759K\)\]](#) [\[References\]](#)**Possible activation of murine T lymphocyte through CD98 is independent of interleukin 2/interleukin 2 receptor system**

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ABSTRACT

CD98 is a widely expressed cell surface heterodimeric protein of 125 kDa. Its expression is upregulated during lymphocyte activation induced by mitogen, superantigen, conventional antigen, and a combination of phorbol myristate acetate (PMA) and ionomycin. However, the role of CD98 in the immune system is not so well understood. The role of CD98 in murine T lymphocyte proliferation was investigated, especially in correlation with the interleukin 2 (IL-2)/interleukin 2 receptor (IL-2R) system. Monoclonal antibody (mAb) directed against murine CD98 heavy chain (mCD98HC) suppressed the proliferation of lymphocytes stimulated with concanavalin A (Con A). Anti-mCD98HC mAb did not suppress the expression of IL-2R α . Anti-IL-2R α mAb, which suppressed DNA synthesis, did not inhibit the expression of CD98HC. Murine IL-2 (recombinant), which induced considerable DNA synthesis by lymphocytes stimulated with a sub-optimal dose of Con A, did not induce CD98HC expression in lymphocytes. In addition, anti-mCD98HC mAb did

not inhibit the production of IL-2 by lymphocyte stimulated with Con A. Taken together with these findings, it was speculated that the CD98 system is independent of the IL-2/IL-2R system in murine T lymphocyte activation.



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