

VIRMET 00902

## Fine mapping of an immunodominant region of the transmembrane protein of the human immunodeficiency virus (HIV-1)

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### Summary

Peptides of HIV sequences are significant for antibody screening systems, and because of the limited number of amino acids they have to represent immunodominant regions of the virus proteins in order to maintain sensitivity. We detected, in a region of the outside loop of the transmembrane protein gp41 of the human immunodeficiency virus HIV-1 (amino acid 586-620), two immunodominant sequences which are distinct from each other. Whereas in the first immunodominant region the sensitivity and specificity of ELISA were inadequate, a neighbouring region is well suited for use as antigen for an anti-HIV screening ELISA.

HIV; Anti-HIV ELISA; Synthetic peptide; Transmembrane protein gp41

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### Introduction

ELISAs for detecting anti-HIV antibodies are placed in three categories depending on the type of antigen used. First generation assays are based on the use of HIV-lysates as antigen. The reactivity of serum samples with host cell material (Hoxie et al., 1987) often leads to false-positive results, particularly in patients with autoimmune diseases and persons with antilymphocytic antibodies (Kühnl et al.,

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