Abstract: A mutant designated NL-E65, which lacks the expression of entire vpu gene, was constructed from T-cell tropic wild-type (wt) human immunodeficiency virus type1 (HIV-1) clone and monitored for its replication property in human cells, along with a mutant NL-Ss which expresses a C-terminal truncated Vpu. The mutant NL-Ss could grow in two cell lines and in all peripheral blood mononuclear cell (PBMC) preparations to some extent, with kinetics similar to those of wt virus. Likewise, the mutant NL-E65 exhibited a replication property typical to the vpu mutant in the two cell lines and in all PBMC cultures, growing at a low level. Along with the results previously reported, these data indicate that HIV-1 Vpu is dispensable for virus replication in any of the types of cells so far tested. J. Med. Invest. 46 : 43-47, 1999

Keywords: HIV-1, Vpu, accessory gene

Cells, transfection, and infection

V-polymerase, nef, vif, vpr, and vpu play important roles for virus replication. This study was performed to determine whether HIV-1 Vpu is dispensable for virus replication in any of the types of cells so far tested.
RT assay

Western blotting

DNA constructs

Western blot analysis of vpu mutants

Growth property of vpu mutant viruses in established cell lines
Growth property vpu mutant viruses in PBMCs

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