

제 목	Phenotypes of Integrase-Mutated Human Immunodeficiency Virus Type-1(HIV-1)
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내 용	<p>Point mutations in a highly conserved central region of the HIV-1 integrase protein were analyzed for their effects on viral replication and virion morphogenesis. Conservative amino acid replacements of two amino acid residues invariant among retroviral integrases, D116 and E152 of HIV-1, as well as the highly conserved amino acid S147, completely blocked viral replication in two CD4<sup>+</sup> human T cell lines. Mutation of four other highly conserved amino acids in the region had no detectable effect on viral replication, while mutations at two positions, N117 and Y143, resulted in viruses with a delayed replication phenotype. Characteristic and reproducible defects in virion core structure were observed by electron microscopic analysis of some of the replication defective integrase point mutants, indicating that mutant integrase proteins can interfere with the process of virion core maturation.</p>