

POSTER 10

MECHANISTIC INTERPLAY BETWEEN CENTRAL POLYPURINE TRACT SEQUENCE AND THE REVERSE TRANSCRIPTASE INHIBITOR SENSITIVITY OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1

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Here we demonstrate that inactivation of the central polypurine tract (cPPT) reduced proviral DNA synthesis and the transduction efficiency of HIV-1 vector harboring the M184I 3TC resistant mutant RT, which is kinetically impaired by its reduced dNTP binding affinity. Importantly, upon the treatment of the cells with 3TC, the inactivation of the cPPT re-sensitized the M184I vector to 3TC. The same inhibitor sensitization effect induced by the cPPT inactivation was also observed with wild type RT vector when treated with Nevirapine. These results reveal a kinetic interplay between the replicational role of the cPPT and HIV-1 sensitivity to RT inhibitors.