

# **The HLA A2/6802 Supertype Is Associated With Reduced Risk Of Perinatal Human Immunodeficiency Virus Type 1 Transmission. J I**

Macdonald, K S; Embree, J E; Nagelkerke, N J; Castillo, J; Ramhadin, S; Njenga, S; Oyug, J; Ndinya-Achola, JO; Barber, B H; Bwayo, JJ; Plummer, F A

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## **Abstract:**

Certain HLAs may, in part, account for differences in human immunodeficiency virus type 1 (HIV-1) susceptibility by presenting conserved immunogenic epitopes for T cell recognition. The HLA supertype A2/6802 is associated with decreased susceptibility to HIV-1 among sex workers. The alleles in this supertype present the same HIV-1 peptide epitopes for T cell recognition in some cases. This study sought to determine whether the HLA A2/6802 supertype influenced HIV-1 transmission in a prospective cohort of HIV-1-infected mothers and children in Kenya. Decreased perinatal HIV-1 infection risk was strongly associated with possession of a functional cluster of related HLA alleles, called the A2/6802 supertype (odds ratio, 0.12; 95% confidence interval, 0.03-0.54;  $P=0.006$ ). This effect was independent of the protective effect of maternal-child HLA discordance. These data provide further evidence that HLA supertypes are associated with differential susceptibility to HIV-1 transmission.