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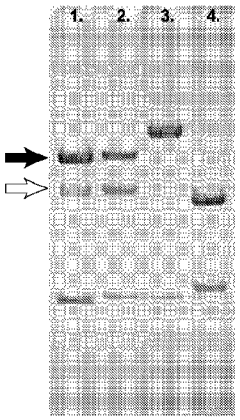


FIG. 1

1. **DCIR.gag p24** [77 kDa] **C241**
2. **LOX-1.gag p24** [77 kDa]
3. **LOX-1.flex HA1-1** [87 kDa]
4. **mIgG** [50 kDa]



(57) Abstract: The present invention includes compositions and methods for making and using a vaccine that includes a DC-specific antibody or fragment thereof to which an engineered Gag antigen is attached to form an antibody-antigen complex, wherein the Gag antigen is less susceptible to proteolytic degradation by eliminating one or more proteolytic sites or a DC-specific antibody or fragment thereof to which an engineered Nef antigen is attached to form an antibody-antigen complex, wherein the Nef antigen comprises one or more codon usage optimization that increase antibody-antigen complex secretion, or both, wherein the vaccine is able to elicit an HIV-specific T cell immune response to Gag p17, Gag p24, Nef and/or Cy clin D1.

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