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(54) Title: HIV INHIBITING PROTEINS

(57) Abstract: The invention relates to proteins comprising HIV fusion inhibiting peptides, such as T-20 and/or T-1249 peptides (including, but not limited to, fragments and variants thereof), which exhibit anti-retroviral activity, fused to albumin (including, but nbot limited to fragments or vairants of albumin). These fusion proteins are herein collectively referred to as "albumin fusion proteins of the invention." These fusion proteins exhibit extended shelf-life and/or extended or therapeutic activity. The invention encompasses therapeutic albumin fusion proteins, compositions, pharmaceutical compositions, formulations and kits. The invention also encompasses nucleic acid molecules encoding the albumin fusion proteins of the invention, as well as vectors containing these nucleic acids, host cells transformed with these nucleic acids and vectors, and methods of making the albumin fusion proteins of the invention using these nucleic acids, vectors, and/or host cells. The invention also relates to compositions and methods for inhibiting HIV-induced cell fusion. The invention further relates to compositions and methods for inhibiting HIV transmission to uninfected cells.