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(54) Title: HBV CORE ANTIGEN PARTICLES WITH MULTIPLE IMMUNOGENIC COMPONENTS ATTACHED VIA PEPTIDE LIGANDS

(57) Abstract

This invention relates to hepatitis B virus ("HBV") core antigen particles that are characterized by multiple immunogen specificities. More particularly, the invention relates to HBV core antigen particles comprising immunogens, epitopes, or other related structures, crosslinked thereto by ligands which are HBV capsid–binding peptides that selectively bind to HBV core protein. Such particles may be used as delivery systems for a diverse range of immunogenic epitopes, including the HBV capsid–binding peptides, which advantageously also inhibit and interfere with HBV viral assembly by blocking the interaction between HBV core protein and HBV surface proteins. Mixtures of different immunogens and/or capsid–binding peptide ligands may be crosslinked to the same HBV core particle. Such resulting multicomponent or multivalent HBV core particles may be advantageously used in therapeutic and prophylactic vaccines and compositions, as well as in diagnostic compositions and methods using them.



