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(54) Title: LYXOFURANOSYL BENZIMIDAZOLES AS ANTIVIRAL AGENTS

(57) Abstract

The present invention pertains to D- and L-lyxofuranosyl benzimidazole compounds. In one embodiment, the present invention pertains to D- and L-lyxofuranosyl benzimidazole compounds selected from the group consisting of compounds having a formula selected from the following:

(beta-D), (beta-L), (alpha-L) and (alpha-D) wherein R², R⁴, R⁵, R⁶, and R⁷ are independently the same or different and independently selected from the group consisting of: -H, -F, -Cl, -Br, -I, -NO₂, -N(R⁸)₂, -OR⁸, -SR¹², and -CF₃, wherein R⁸ is independently -H or an alkyl group having 1-6 carbon atoms and wherein R¹² is independently -H or a hydrocarbonyl group having 1-10 carbon atoms; and R⁹, R¹⁰ and R¹¹ are

independently the same or different and are H or a hydroxyl protecting group; anomeric and optical isomers thereof; and pharmaceutically acceptable salts and prodrug derivatives thereof. The present invention also pertains to antiviral compositions using these compounds, methods of treating a viral infection using these compounds, and the use of these compounds in the preparation of a medicament for use in the treatment of a viral infection.

