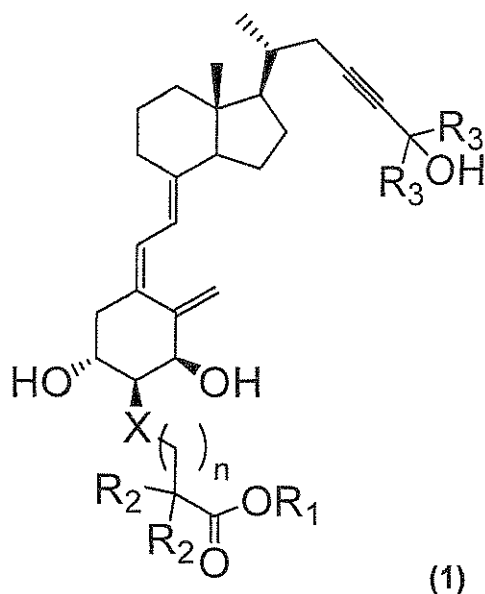


ABSTRACT

To provide a novel vitamin D<sub>3</sub> derivative useful as a therapeutic agent for osteoporosis.

5        Provided is a vitamin D<sub>3</sub> derivative represented by the following formula (1) or a medically acceptable solvate thereof:



10        wherein R<sub>1</sub> represents a hydrogen atom, an alkyl group having 1 to 6 carbon atoms, an alkylcarbonyloxyalkyl group with each alkyl having 1 to 6 carbon atoms, or an arylcarbonyloxyalkyl group with the aryl having 6 to 10 carbon atoms and the alkyl having 1 to 6 carbon atoms; R<sub>2</sub>  
15        represents a hydrogen atom or an alkyl group having 1 to 6 carbon atoms or, together with the other R<sub>2</sub> and the carbon atom to which they are bound to, may form a cyclic alkyl group having 3 to 6 carbon atoms; R<sub>3</sub> represents an  
20        alkyl group having 1 to 6 carbon atoms or, together with the other R<sub>3</sub> and the carbon atom to which they are bound to, may form a cyclic alkyl group having 3 to 6 carbon atoms; X represents an oxygen atom or a methylene group; and n represents an integer of 1 or 2.