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[54] **METHOD OF HIGH-SENSITIVE ANALYSIS OF BILE ACID AND REAGENT COMPOSITION FOR THE ANALYSIS**

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[58] **Field of Search** 435/25, 26, 14.4

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[57] **ABSTRACT**

A method for a high-sensitivity quantitative analysis of bile acid in a bile acid-containing sample utilizes a reagent comprising:

(1) a steroid dehydrogenase which is capable of effecting a reversible reaction producing oxobile acid using bile acid, as a substrate, and a nicotinamide adenine dinucleotide phosphate compound (hereinafter referred to as an NADP compound) or a nicotinamide adenine dinucleotide compound (hereinafter referred to as an NAD compound) as coenzyme;

(2) a compound A_1 selected from the group consisting of NADP compounds and NAD compounds, in an amount surplus relative to the amount of bile acid;

(3)

(i) compound B_1 selected from the group consisting of a reduced NAD compound and a reduced NADP compound, compound B_1 being a reduced NAD compound, when A_1 is an NADP compound, and a reduced NADP compound, when A_1 is an NAD compound, or

(ii) a compound B_2 which is an oxidized product of B_1, or

(iii) a mixture of B_1 and B_2, where the amount of B_1 plus B_2 is less than 1/100 of the molar amount of A_1, and

(iv) a second dehydrogenase which does not react with bile acid and compound A_1, but does effect a reaction converting compound B_2 into compound B_1, and the substrate of the second dehydrogenase.

18 Claims, 5 Drawing Sheets