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(12) **United States Patent**
Callewaert et al.(10) **Patent No.:** US 7,335,512 B2
(45) **Date of Patent:** *Feb. 26, 2008(54) **MARKER FOR MEASURING LIVER CIRRHOSIS**(75) Inventors: **Nico L. M. Callewaert**, Lichervelde (BE); **Roland H. Contreras**, Merelbeke (BE)(73) Assignees: **Vlaams Interuniversitair Instituut voor Biotechnologie vzw**, Zwijnaarde (BE); **Universiteit Gent**, Gent (BE)

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536/53(58) **Field of Classification Search** 436/63,
436/93-95; 435/7.1; 536/53

See application file for complete search history.

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(57) **ABSTRACT**

The invention provides methods and kits to detect liver cirrhosis in mammals. The diagnostic test is based on the profiling and identification of diagnostic carbohydrates present in a body fluid such as blood serum.

10 Claims, 9 Drawing Sheets