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(54) **α -CATENIN EXPRESSED IN HEART AND TESTIS**

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(58) **Field of Classification Search** **530/350; 435/69.1, 252.3, 320.1, 6; 536/23.1**

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,470,966 A 11/1995 Hirano et al.

FOREIGN PATENT DOCUMENTS

WO WO 96/02002 1/1996
WO WO 98/45319 10/1998
WO WO 02/04636 A1 1/2002

OTHER PUBLICATIONS

Abstract, XP-002162171.
Abstract, XP-002162172.
Abstract, XP-002162173.
Abstract, XP002162169.
Abstract, XP-002162170.
Abstract, XP-002183100.
Abstract, XP-002183101.
PCT International Search Report, PCT/EP01/07392, dated Nov. 28, 2001, 3 pages.
PCT International Preliminary Examination Report, PCT/EP01/07392, dated Oct. 14, 2002, 8 pages.

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(57) **ABSTRACT**

The present invention relates to a novel α -catenin with a new, specific expression pattern in mainly heart and testis. The invention further relates to the use of this α -catenin in the prediction, diagnosis, and/or treatment of cadherin-catenin related diseases, in particular cardiomyopathies and male infertility.

11 Claims, 33 Drawing Sheets