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WU, Xifeng [US/US]; 11504 Ivory Creek Drive, Pearland, TX 77584 (US). **XIE, Keping** [US/US]; 3911 Clarestone Drive, Pearland, TX 77584 (US).
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(54) Title: QUANTITATIVE RT-PCR TO AC133 TO DIAGNOSE CANCER AND MONITOR ANGIOGENIC ACTIVITY IN A CELL SAMPLE

(57) Abstract: The present invention involves the use of quantitative RT-PCR to identify AC133 as a marker. AC133 is prevalent on endothelial progenitor cells (EPCs), which are important cells in angiogenesis. Therefore, the invention is applied to ascertain the quantity of EPCs in a subject, and to diagnose and monitor angiogenesis, for example, in injured tissues and in cancer development and progression.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/26169

<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : C12P 19/34; C12Q 1/68; C07H 21/04 US CL : 435/6, 91.1, 91.51; 536/23.1, 24.33 According to International Patent Classification (IPC) or to both national classification and IPC</p>																
<p>B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 435/6, 91.1, 91.51; 536/23.1, 24.33</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet</p>																
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>Y, P</td> <td>US 6,455,678 B1 (YIN et al.) 24 September 2002 (24.09.2002), see whole document, especially columns 12-17 and 23-24.</td> <td>1-27</td> </tr> <tr> <td>Y</td> <td>WO 97/41224 A1 (AMCELL CORPORATION) 06 November 1997 (06.11.1997), see whole document.</td> <td>1-27</td> </tr> <tr> <td>A</td> <td>BHATIA, M. "AC133 Expression in Human Stem Cells". Leukemia. 2001, Vol. 15, pages 1685-1688, see whole document.</td> <td>1-27</td> </tr> <tr> <td>A</td> <td>YIN et al. "AC133, a Novel Marker for Human Hematopoietic Stem and Progenitor Cells". Blood. December 1997, Vol. 12, No. 90, pages 5002-5012, see whole document.</td> <td>1-27</td> </tr> </tbody> </table>		Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	Y, P	US 6,455,678 B1 (YIN et al.) 24 September 2002 (24.09.2002), see whole document, especially columns 12-17 and 23-24.	1-27	Y	WO 97/41224 A1 (AMCELL CORPORATION) 06 November 1997 (06.11.1997), see whole document.	1-27	A	BHATIA, M. "AC133 Expression in Human Stem Cells". Leukemia. 2001, Vol. 15, pages 1685-1688, see whole document.	1-27	A	YIN et al. "AC133, a Novel Marker for Human Hematopoietic Stem and Progenitor Cells". Blood. December 1997, Vol. 12, No. 90, pages 5002-5012, see whole document.	1-27
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"P" document published prior to the international filing date but later than the priority date claimed																
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer <i>Laurence Bell-Hansford</i> Alexander H. Spiegler Telephone No. 571/272-1600															

INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

Databases: USPAT, PG Pub, JPO, EPO, Derwent, Medline, Biosis, Embase, CaPlus, Biotechds

Terms: ac133, primer, PCR, amplification, cancer, product, epithelial, progenitor, angiogenic