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(54) Title: OXIDIZED PARAOXONASE 1 AND PARAOXONASE 1/HDL PARTICLE NUMBER RATIO AS RISK MARKERS FOR CARDIOVASCULAR DISEASE

(57) Abstract: The present invention provides methods and markers for characterizing a subject's, particularly a human subject, risk of having cardiovascular disease. The present invention also provides methods of characterizing a subject's risk of developing cardiovascular disease. In another embodiment, the present invention provides methods for characterizing a subject's risk of experiencing a complication of cardiovascular disease or major adverse cardiac event within 1, 3, or 10 years. In another embodiment, the present invention provides a method for determining whether a subject presenting with chest pain is at risk near term of experiencing a heart attack or other major adverse cardiac event. The present methods are especially useful for identifying those subjects who are in need of highly aggressive CVD therapies as well as those subjects who require no therapies targeted at inhibiting or preventing CVD or complications of CVD.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 09/37326

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61K 39/00; A61K 8/64 (2009.01)

USPC - 435/7.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - A61K 39/00; A61K 8/64 (2009.01)

USPC - 435/7.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC - 435/7.1; 436/16; 436/13; 436/71

(Text Search)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PubWEST (PGPB, UPST, USOC, EPAB, JPAB); DialogPRO (Engineering); PubMed and Google Scholar.

Search Terms: paraoxonase 1, PON1, PON-1, oxidiz\$, oxidat\$, cardiovascular, MPO, myeloperoxidase, chlorotyrosine, nitrotyrosine, bromotyrosine, dityrosine, trihydroxyphenylalanine, dihydroxyphenylalanine, methionine sulfoxide, monohydroxytryptophan

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----	GOCMEN, A. Y. et al. Association between Paraoxonase-1 Activity and Lipid Peroxidation Indicator Levels in People Living in the Antalya Region with Angiographically Documented Coronary Artery Disease. Clin. Cardiol. July 2004, Vol 27(7), pages 426-430: table II; abstract; pg 427, left col, para 1-4, right col, para 1; pg 320, left col, para 2.	28-30, 39 and 40
Y		1-16, 25-27, 31-38 and 41
Y	NGUYEN, S. D. et al. Oxidative Inactivation of Paraoxonase1, an Antioxidant Protein and its Effect on Antioxidant Action. Free Radical Research. December 2003, Vol 37(12), pages 1319-1330: table 3; abstract: table 2; fig 1B; abstract; pg 1323, left col, para 1, right col, para 1.	1-27, 37, 38 and 41
Y	US 2005/0239136 A1 (HAZEN et al.) 27 October 2005 (27.10.2005) claim 1, 3, 17, 32, 40, 41; para [0008], [0009], [0013], [0014], [0033], [0035], [0037], [0046], [0050], [0055], [0056], [0073].	1-27, 31, 32, 37, 38 and 41
Y	US 2006/0205933 A1 (TAWFIK, et al.) 14 September 2006 (14.09.2006) SEQ ID NO: 56; para [0010], [0018].	3
Y	US 2002/0048775 A1 (HAZEN et al.) 25 April 2002 (25.04.2002) para [0011].	24
Y	US 2006/0205792 A1 (WONG et al.) 14 September 2006 (14.09.2006) para [0004], [1160].	33-36

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* Special categories of cited documents:

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"&" document member of the same patent family

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