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(54) **Genetic polymorphisms associated with myocardial infarction, methods of detection and uses thereof**

(57) The present invention is based on the discovery of genetic polymorphisms that are associated with myocardial infarction. In particular, the present invention relates to nucleic acid molecules containing the polymorphisms, variant proteins encoded by such nucleic acid molecules, reagents for detecting the polymorphic nucleic acid molecules and proteins, and methods of using the nucleic acid and proteins as well as methods of using reagents for their detection.

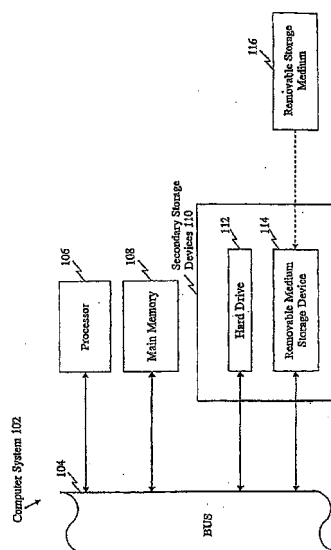


FIGURE 1



EUROPEAN SEARCH REPORT

Application Number
EP 12 16 3442

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 0 609 059 A2 (CLONIT SPA [IT] CLONIT S R L [IT]) 3 August 1994 (1994-08-03) * page 6, lines 5-9; claim 17; figures 1-2 *	1-22	INV. C12Q1/68 C07K14/47 C07K14/705 C07K16/18 C07K16/28
X	----- DATABASE dbSNP [Online] NCBI; 16 October 2000 (2000-10-16), "Reference SNP(refSNP) Cluster report: rs867186", XP002686693, Database accession no. rs867186 * the whole document *	1-22	
A	----- MERATI G, BIGUZZI E, OGANESYAN N ET AL.: "A 23bp insertion in the endothelial protein C receptor (EPCR) gene in patients with myocardial infarction and deep vein thrombosis", SUPPLEMENT TO THE JOURNAL THROMBOSIS AND HAEMOSTASIS, vol. 507, 1999, page Abs.1596, XP008157335, * abstract *	1-22	TECHNICAL FIELDS SEARCHED (IPC) C12Q C07K
A	----- BIGUZZI E ET AL: "A 23BP INSERTION IN THE ENDOTHELIAL PROTEIN C RECEPTOR (EPCR) GENE IMPAIRS EPCR FUNCTION", THROMBOSIS AND HAEMOSTASIS, SCHATTAUER GMBH, DE; US, vol. 86, no. 4, 1 October 2001 (2001-10-01), pages 945-948, XP009026347, ISSN: 0340-6245 * the whole document *	1-22	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 8 November 2012	Examiner Aguilera, Miguel
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
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A	SIMMONDS R E ET AL: "The endothelial cell protein C receptor: A candidate genetic risk factor for thrombosis", THROMBOSIS AND HAEMOSTASIS, vol. 86, no. 4, October 2001 (2001-10), pages 939-941, XP008157269, ISSN: 0340-6245 * abstract *	1-22	
A	BIGUZZI EUGENIA ET AL: "Point mutations in the endothelial protein C receptor (EPCR) promoter", THROMBOSIS AND HAEMOSTASIS, vol. 87, no. 6, May 2002 (2002-05), pages 1085-1086, XP008157267, ISSN: 0340-6245 * abstract *	1-22	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 8 November 2012	Examiner Aguilera, Miguel
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	GU J-M ET AL: "DISRUPTION OF THE ENDOTHELIAL CELL PROTEIN C RECEPTOR GENE IN MICE CAUSES PLACENTAL THROMBOSIS AND EARLY EMBRYONIC LETHALITY", JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY, US, vol. 277, no. 45, 8 November 2002 (2002-11-08), pages 43335-43343, XP008042848, ISSN: 0021-9258, DOI: 10.1074/JBC.M207538200 * the whole document *	1-22	
T	J. DENNIS ET AL: "The endothelial protein C receptor (PROCR) Ser219Gly variant and risk of common thrombotic disorders: a HuGE review and meta-analysis of evidence from observational studies", BLOOD, vol. 119, no. 10, 17 January 2012 (2012-01-17), pages 2392-2400, XP55041407, ISSN: 0006-4971, DOI: 10.1182/blood-2011-10-383448 * the whole document *		TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 8 November 2012	Examiner Aguilera, Miguel
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 12 16 3442

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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08-11-2012

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专利名称(译)	与心肌梗塞相关的遗传多态性，检测方法及其用途		
公开(公告)号	EP2474632A3	公开(公告)日	2012-12-19
申请号	EP2012163442	申请日	2003-12-22
申请(专利权)人(译)	塞雷拉基因组公司		
当前申请(专利权)人(译)	塞雷拉基因组公司		
[标]发明人	LAKOUBOVA OLGA DEVLIN JAMES CARGILL MICHELE		
发明人	LAKOUBOVA, OLGA DEVLIN, JAMES CARGILL, MICHELE		
IPC分类号	C12Q1/68 C07K14/47 C07K14/705 C07K16/18 C07K16/28 A61B C07H21/00 C07H21/04 C12N15/12 C12P19/34 G01N33/53		
CPC分类号	C12Q1/6883 C12Q2600/156		
审查员(译)	AGUILERA , MIGUEL		
优先权	60/434778 2002-12-20 US 60/466412 2003-04-30 US 60/453135 2003-03-10 US 60/504955 2003-09-23 US		
其他公开文献	EP2474632A2 EP2474632B1		
外部链接	Espacenet		

摘要(译)

本发明基于与心肌梗塞相关的遗传多态性的发现。特别地，本发明涉及含有多态性的核酸分子，由这种核酸分子编码的变体蛋白，用于检测多态性核酸分子和蛋白质的试剂，以及使用该核酸和蛋白质的方法以及使用方法。用于检测的试剂。

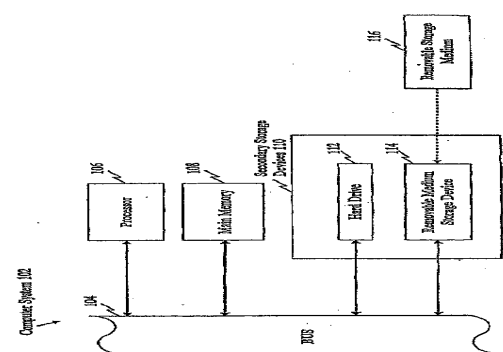


FIGURE 1