

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	US 2014/127712 A1 (CIRILLO JEFFREY D [US] ET AL) 8 May 2014 (2014-05-08)	1-6, 11-14	INV. G01N33/569
Y	* the whole document *	7,8	G01N33/573 C12Q1/04
X	XIE HEXIN ET AL: "Rapid point-of-care detection of the tuberculosis pathogen using a BlaC-specific fluorogenic probe", NATURE CHEMI, NATURE PUBLISHING GROUP, UK, vol. 4, no. 10, 1 October 2012 (2012-10-01), pages 802-809, XP008165104, ISSN: 1755-4349, DOI: 10.1038/NCHEM.1435 [retrieved on 2012-09-02]	1-6, 11-14	C12N9/86 C07K16/12 C12Q1/68 G01N33/68
Y	* the whole document *	7,8	
Y	S. G. KURZ ET AL: "Can Inhibitor-Resistant Substitutions in the Mycobacterium tuberculosis beta-Lactamase BlaC Lead to Clavulanate Resistance?: a Biochemical Rationale for the Use of beta-Lactam-beta-Lactamase Inhibitor Combinations", ANTIMICROBIAL AGENTS AND CHEMOTHERAPY, vol. 57, no. 12, 23 September 2013 (2013-09-23), pages 6085-6096, XP055428380, ISSN: 0066-4804, DOI: 10.1128/AAC.01253-13 * abstract * * chapter "Immunoblotting"; page 6087, column 1 * * page 6088, column 2; figure 3 *	7,8	
			TECHNICAL FIELDS SEARCHED (IPC)
			G01N C12Q C07K C12N
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search <b>The Hague</b>		Date of completion of the search <b>28 November 2017</b>	Examiner <b>Stricker, J</b>
CATEGORY OF CITED DOCUMENTS		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	
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			

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EPO FORM 1503 03 82 (P04N04)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	JUSTIN A MCDONOUGH ET AL: "Identification of Functional Tat Signal Sequences in Mycobacterium tuberculosis Proteins", JOURNAL OF BACTERIOLOGY, vol. 190, 1 October 2008 (2008-10-01), pages 6428-6438, XP055428381, DOI: 10.1128/JB.00749-08 * abstract * * chapters "Anti-BlaC antibody" and "Immunoblot analysis"; page 6430 - page 6431 *	7,8	
Y	WO 2011/119484 A1 (IOGENETICS LLC [US]; BREMEL ROBERT D [US]; HOMAN JANE [US]) 29 September 2011 (2011-09-29) * the whole document *	8	
A	CARL N WIVAGG ET AL: "Mechanisms of [beta]-lactam killing and resistance in the context of Mycobacterium tuberculosis", THE JOURNAL OF ANTIBIOTICS, vol. 67, no. 9, 23 July 2014 (2014-07-23), pages 645-654, XP055414593, GB ISSN: 0021-8820, DOI: 10.1038/ja.2014.94 * abstract * * chapter "beta-lactamase activity"; page 651 *	1-8	
			TECHNICAL FIELDS SEARCHED (IPC)
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
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EPO FORM 1503 03 82 (P04N04)

### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the first mentioned in the claims, namely claims:  
1-8, 13(completely); 11, 12, 14(partially)

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-8, 13(completely); 11, 12, 14(partially)

An affinity reagent that specifically binds to a beta-lactamase (BlaC) of a tuberculosis-complex bacteria.  
A method of detecting the presence of tuberculosis-complex bacteria in a biological sample, involving such an affinity reagent.

A method of detecting the presence of tuberculosis-complex bacteria in a biological sample, involving an anti-BlaC antibody.

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2. claims: 9, 10, 15(completely); 11, 12, 14(partially)

A method of detecting the presence of tuberculosis-complex bacteria in a biological sample, involving hybridization of a polynucleotide probe.

A method for determining the presence of tuberculosis-complex bacteria in a biological sample, involving amplification and a primer pair.

An isolated polynucleic acid molecule comprising a detectable label, having a sequence selected from SEQ ID NOS: 3-29, or a kit comprising said polynucleic acid molecule.

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

EP 15 83 4020

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  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

28-11-2017

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2014127712 A1	08-05-2014	US 2014127712 A1	08-05-2014
		US 2016376629 A1	29-12-2016
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WO 2011119484 A1	29-09-2011	EP 2550529 A1	30-01-2013
		US 2013330335 A1	12-12-2013
		WO 2011119484 A1	29-09-2011
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专利名称(译)	β-内酰胺酶作为生物标志物用于特异性检测结核病复合菌		
公开(公告)号	<a href="#">EP3183574A4</a>	公开(公告)日	2018-05-02
申请号	EP2015834020	申请日	2015-08-17
[标]申请(专利权)人(译)	德克萨斯州农工大学		
申请(专利权)人(译)	得克萨斯州A & M大学系统		
当前申请(专利权)人(译)	得克萨斯州A & M大学系统		
[标]发明人	CIRILLO JEFFREY D NORMAN MICHAEL T		
发明人	CIRILLO, JEFFREY D. NORMAN, MICHAEL T.		
IPC分类号	G01N33/53 G01N33/569 G01N33/573		
CPC分类号	G01N33/573 C07K16/1289 C07K16/40 C07K2317/33 C12N9/86 C12Q1/04 C12Q1/689 C12Y305 /02006 G01N33/5695 G01N33/6854 G01N2333/35 G01N2333/986 G01N2469/10 G01N2800/52		
优先权	62/134332 2015-03-17 US 62/038736 2014-08-18 US		
其他公开文献	EP3183574A1		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

本公开内容提供了靶向β-内酰胺酶作为用于敏感和特异性检测结核 - 复合细菌的生物标志物的方法，试剂，系统和装置。具体地，本公开涉及用于检测特定β-内酰胺酶蛋白和核酸序列以指示结核病复合细菌的存在的的方法和组合物。

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The supplementary search report has been based on the last set of claims valid and available at the start of the search.

28 November 2017

STERCKER, J

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