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06 June 2019 (06.06.2019)

(54) Title: METHOD FOR DETECTING HYDROGEN PEROXIDE CONVERSION ACTIVITY OF AN ENZYME

(57) Abstract: The present invention relates to the detection of enzyme activity, in particular hydrogen conversion activity of an enzyme such as peroxygenase or peroxidase activity. More particularly, the invention provides a microplate-scale absorbance/fluorescence-based method for the detection of hydrogen conversion activity of an enzyme based on the measurement of hydrogen peroxide changes. The invention further provides screening methods for enzymes with improved hydrogen conversion activity, and a kit and combination of reagents suitable for use in the methods of the invention.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
INV. C12Q1/28 C12Q1/30 C10G3/00 G01N33/50
ADD.

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)
C12Q C10G G01N

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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, BIOSIS, EMBASE, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	TADAYUKI IWASE ET AL: "A Simple Assay for Measuring Catalase Activity: A Visual Approach", SCIENTIFIC REPORTS, vol. 3, no. 1, 30 October 2013 (2013-10-30), XP055438230, DOI: 10.1038/srep03081	14,15
A	abstract; fig. 2A	1-13

Y	WO 2005/017106 A2 (CALIFORNIA INST OF TECHN [US]; ARNOLD FRANCES H [US] ET AL.) 24 February 2005 (2005-02-24)	14,15
A	Example 3	1-13

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
29 April 2019	07/05/2019

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JOB L. GRANT ET AL: "Decarboxylation of Fatty Acids to Terminal Alkenes by Cytochrome P450 Compound I", JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 137, no. 15, 22 April 2015 (2015-04-22), pages 4940-4943, XP055206222, ISSN: 0002-7863, DOI: 10.1021/jacs.5b01965	14,15
A	abstract; figs. 1-2	1-13

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2005017106 A2	24-02-2005	US 2005059045 A1	17-03-2005
		WO 2005017106 A2	24-02-2005