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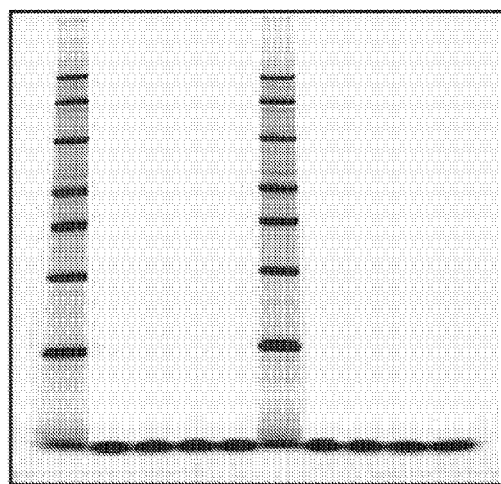
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— with international search report (Art. 21(3))

[Continued on next page]

- (54) Title: FLUORESCENT TRACKING DYE



1 2 3 4 5 6 7 8 9 10

FIG. 25

(57) Abstract: The present invention provides dual labeled protein standards useful for the simultaneous determination of the molecular weight of a subject protein as well as the relative mass (i.e., amount) of the subject protein present in an electrophoresis lane. The invention is also directed to methods suitable for the preparation of such dual labeled protein standards and to methods of using such dual labeled proteins to simultaneously determine the molecular weight and the relative amount of a subject protein. Further embodiments provide for a fluorescent tracking that can be used to monitor the progression of the ion front through an electrophoresis gel. Additional embodiments are directed to methods for making a fluorescent tracking dye. Yet further embodiments are directed to kits containing a fluorescent tracking dye and a dual labeled protein standard.





— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

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8 August 2013

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/035242

A. CLASSIFICATION OF SUBJECT MATTER
INV. G01N33/68
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)
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, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2011/031497 A2 (LIFE TECHNOLOGIES CORP [US]; DILLER THOMAS [US]; UPDYKE TIMOTHY [US]) 17 March 2011 (2011-03-17) abstract; claims -----	1-45
X	US 2009/178926 A1 (BOGOEV ROUMEN [US] ET AL) 16 July 2009 (2009-07-16) paragraph [0279] -----	1
A	WO 2011/025781 A1 (LIFE TECHNOLOGIES CORP [US]; UPDYKE TIMOTHY VALE [US]; PREDKI PAUL [US]) 3 March 2011 (2011-03-03) page 4, paragraph 1 paragraph [0064] -----	1-45

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

25 September 2012

Date of mailing of the international search report

13/06/2013

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2012/035242

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2011031497 A2	17-03-2011	CN 102648415 A	22-08-2012
		EP 2470912 A2	04-07-2012
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		US 2011042217 A1	24-02-2011
		WO 2011025781 A1	03-03-2011
		WO 2011028532 A1	10-03-2011

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2012/035242

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.c of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
 - a. (means)
 - on paper
 - in electronic form
 - b. (time)
 - in the international application as filed
 - together with the international application in electronic form
 - subsequently to this Authority for the purpose of search
2. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/035242

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-45

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-45

Dual-labelled protein standard comprising a plurality of purified proteins of differing molecular weight wherein at least a portion of said proteins is labelled with a first fluorescent label, which constitutes a molecular weight standard and wherein at least two of said proteins are labelled with a second fluorescent label and constitute a mass standard. Method of determining the relative amount of a protein in a sample making use of said dual-labelled standard.

2. claims: 46-55

Fluorescent dye comprising an anionic amino acid covalently linked to an amine reactive fluorogenic dye and kit comprising said dye.
