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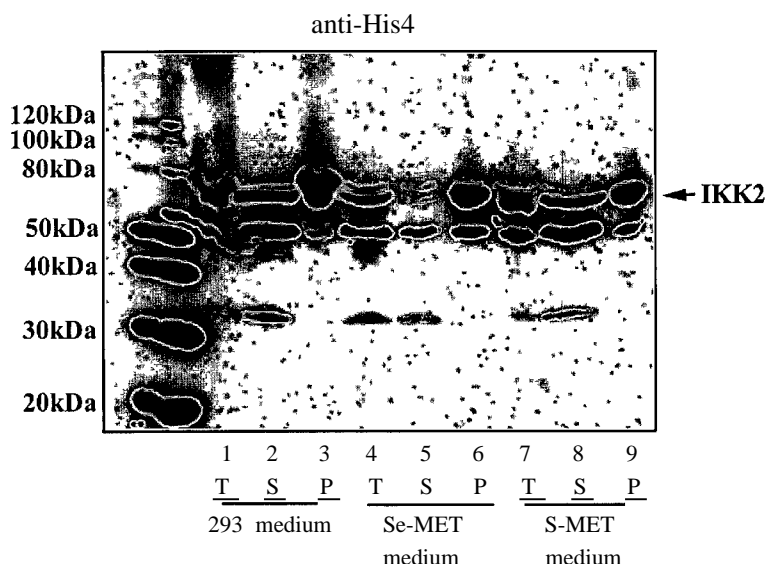
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(54) **Title:** METHODS OF LABELING TRANSIENTLY EXPRESSED PROTEINS IN LARGE-SCALE EUKARYOTIC CELL CULTURES



(57) **Abstract:** The present invention is based on observations that transiently transfecting large-scale eukaryotic cell cultures with a polynucleotide encoding a protein of interest can be used to rapidly produce the large quantities of labeled proteins required for various biochemical techniques such as spectroscopy, microscopy, and crystallography, and applications including protein structure determination, protein tracing and/or localization, diagnostic and therapeutic applications, and affinity experiments. Thus, the present invention provides methods for rapidly producing large quantities of labeled proteins by using transient transfection of large-scale eukaryotic cell cultures, which are then grown in a chemically defined labeling medium that includes labeled amino acids. The present invention is also directed to methods of using the labeled proteins produced by the novel labeling methods for use in various techniques.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 INV. C07K1/13 C12N9/12 C12P21/02

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 C07K C12N C12P

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 practical, search terms used)

EPO-Internal , BIOSIS, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	paragraph [0010] - paragraph [0074] -----	1-21
X	LUSTBADER O W ET AL: "THE EXPRESSION, CHARACTERIZATION, AND CRYSTALLIZATION OF WILD-TYPE AND SELENOMETHIONYL HUMAN CHORIONIC GONADOTROPIN" ENDOCRINOLOGY, BALTIMORE, MD, US, vol. 136, no. 2, 1 January 1995 (1995-01-01), pages 640-650, XP009006476 ISSN: 0013-7227	22
Y	page 641, column 1, paragraph 2 - page 642, column 2, paragraph 3 ----- -/--	1-7, 14-21

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P1" document published prior to the International filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"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.</p> <p>"S" document member of the same patent family</p>
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Date of the actual completion of the International search	Date of mailing of the International search report
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280HV RIJSWIJK Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer De Kok, Ad
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International application No
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Category*	Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.
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International application No
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
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Y	<p>PHAM P L ET AL: "Large-scale transient transfection of serum-free suspension-growing HEK293 EBNA1 cells: Peptone additives improve cell growth and transfection efficiency" BIOTECHNOLOGY AND BIOENGINEERING, WILEY & SONS, HOBOKEN, NJ, US, vol. 84, no. 3, 5 November 2003 (2003-11-05), pages 332-342, XP002296366 ISSN: 0006-3592 page 332, column 2 - page 335, column 1</p>	1,6-13, 16
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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