



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : C12N 15/12, 15/11, 5/10, 1/21, C07K 14/47, A61K 38/17, G01N 33/50, 33/68, C12Q 1/68</p>	A3	<p>(11) International Publication Number: WO 99/33985</p> <p>(43) International Publication Date: 8 July 1999 (08.07.99)</p>
<p>(21) International Application Number: PCT/US98/27665</p> <p>(22) International Filing Date: 28 December 1998 (28.12.98)</p> <p>(30) Priority Data: 60/068,956 30 December 1997 (30.12.97) US</p> <p>(71) Applicant: CHIRON CORPORATION [US/US]; 4560 Horton Street, Emeryville, CA 94608 (US).</p> <p>(72) Inventor: KAUFMANN, Joerg; Chiron Corporation, Intellectual Property - R440, P.O. Box 8097, Emeryville, CA 94662-8097 (US).</p> <p>(74) Agents: POTTER, Jane, E., R. et al.; Chiron Corporation, Intellectual Property - R440, P.O. Box 8097, Emeryville, CA 94662-8097 (US).</p>	<p>(81) Designated States: AU, CA, JP, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p>(88) Date of publication of the international search report: 19 August 1999 (19.08.99)</p>	
<p>(54) Title: C1F150/hTAF_{II}150 IS NECESSARY FOR CELL CYCLE PROGRESSION</p> <p style="text-align: center;">5' GTACCGAGCTCGGATCC N N N N N N N N CTCGAGCATGCATCTAG 3'</p> <p style="text-align: center;">G: 8 10 37 0 36 6 3 A: 6 12 4 38 2 22 17 T: 11 10 2 6 2 5 12 C: 19 12 1 0 4 11 12</p> <p style="text-align: right; margin-right: 100px;">n = 44</p> <p style="text-align: center;">CONSENSUS: Py X G A G^{A/C} A/Py</p> <p>(57) Abstract</p> <p>A human protein termed C1F150/hTAF_{II}150 recognizes and selects TATA-less core promoters for cell cycle specific genes. Thus, C1F150/hTAF_{II}150 plays an important and selective role in establishing gene expression patterns necessary for progression through the cell cycle. The C1F150/hTAF_{II}150 gene and its expression products can be used to alter the spatial or temporal patterns of mitosis or cell cycle progression of a human cell and to treat disorders involving alterations in the regulation of mitosis or cell cycle progression.</p>		

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INTERNATIONAL SEARCH REPORT

Int. .ional Application No

PCT/US 98/27665

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12N15/12 C12N15/11 C12N5/10 C12N1/21 C07K14/47
 A61K38/17 G01N33/50 G01N33/68 C12Q1/68

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)

IPC 6 C12N C07K A61K G01N C12Q

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EMBEST 19 E.M.B.L. Databases Accession Number: AA103510, 30 October 1996 MARRA M ET AL: "Mus musculus cDNA clone 554617 5' similar to:G541665 DTAFII-150 mRNA" XP002106718	4
Y	see abstract ---	1-7
Y	KAUFMANN J ET AL: "CIF, an essential cofactor for TFIID-dependent initiator function" GENES AND DEVELOPMENT, vol. 10, no. 7, 1 April 1996, pages 873-886, XP002106713 cited in the application see figures 5-7 ---	1-7

Further documents are listed in the continuation of box C.

Patent family members are listed in 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 document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
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- "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.
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Date of the actual completion of the international search

21 June 1999

Date of mailing of the international search report

06/07/1999

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 98/27665

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE EMROD E.M.B.L. Databases Accession Number: K01334, 1 March 1991 WODNAR-FILIPOWICZ A ET AL: "Cloning and sequence analysis of cDNA for rat spleen thymosin beta 4" XP002106719 see nucleotide 53 - nucleotide 59 ----</p>	26
P,X	<p>KAUFMANN J ET AL: "CIF150, a human cofactor for transcription factor IID-dependent initiator function" MOL. CELL. BIOL., vol. 18, no. 1, January 1998, pages 233-239, XP002106714 cited in the application see figure 1; page 234, column 2, line 31-32; page 236, column 1, paragraph 2 ----</p>	1-7,25
P,X	<p>MARTINEZ E ET AL: "Novel cofactors and TFIIA mediate functional core promoter selectivity by the human TAFII150-containing TFIID complex" MOL. CELL. BIOL., vol. 18, no. 11, November 1998, pages 6571-6583, XP002106715 see figure 1 ----</p>	1-7,25
A	<p>WALKER S ET AL: "Transcription activation in cells lacking TAFIIIs" NATURE, vol. 383, 12 September 1996, pages 185-188, XP002106747 see page 186, column 2, line 4-11, and page 186, column 2, paragraph 3 ----</p>	8-19
A	<p>VERRIJZER C ET AL: "Drosophila TAFII150: similarity to yeast gene TSM-1 and specific binding to core promoter DNA" SCIENCE, vol. 264, no. 5161, 13 May 1994, pages 933-941, XP002106716 cited in the application ----</p>	
A	<p>WO 94 17087 A (UNIV CALIFORNIA) 4 August 1994 -----</p>	

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 98/27665

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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:
Although claims 8-19, as far as in vivo methods are concerned, are directed to diagnostic methods practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
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 II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

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

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 fee, this Authority did not invite payment of any additional fee.
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.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 98/27665

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9417087 A	04-08-1994	AU 682340 B	02-10-1997
		AU 6131194 A	15-08-1994
		CA 2154882 A	04-08-1994
		EP 0681585 A	15-11-1995
		JP 8509119 T	01-10-1996
		US 5534410 A	09-07-1996
		US 5637686 A	10-06-1997
