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1 August 1996 (01.08.96)

(54) Title: YEATS TELOMERASE COMPONENTS AND METHODS USING THEM

(57) Abstract

Disclosed are various methods, compositions and screening assays connected with telomerase, including genes encoding the template RNA of *S. cerevisiae* telomerase and various telomerase-associated polypeptides.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 95/13801

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 C12N15/54 C12N15/11 C12N15/31 C12N9/12 C07K14/395
C12Q1/68 C12Q1/48 C07K16/14 G01N33/68 A61K35/12
A61K35/72

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	EMBL DATABASE ENTRY SCGAL1; ACCESSION NUMBER X76078 (VERSION 6), 16 June 1994, XP002000584 SMITS, P. ET AL.: "The complete sequence of a 33 kb fragment on the right arm of chromosome II from Saccharomyces cerevisiae reveals 16 open reading frames, five previously identified genes and a homologue of the SCO1 gene" see from nucleotides 30736 to 32036 ---	1-4, 10-15, 30,34, 36-43, 61,93
X	EMBL DATABASE ENTRY SC4554; ACCESSION NUMBER Z38113 (VERSION 1), 15 October 1994, XP002000585 "S.cerevisiae chromosome IX lambda clone 4554" see PID:g558392 and nucleotides 5048 to 5854 --- -/--	1-3,8, 10-14, 22,30, 36,37

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

[X] Patent family members are listed in annex.

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1

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24 May 1996

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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.
X	WO,A,93 23572 (GERON CORP ;UNIV CALIFORNIA SAN FRANCISCO (US)) 25 November 1993 see page 14, line 44 - page 32 see examples see claims ---	32, 100-110, 114-122
X	GENES & DEVELOPMENT, vol. 5, no. 1, 1991, pages 49-59, XP002000586 LIU, Z. & TYE, B.-K.: "A yeast protein that binds to vertebrate telomeres and conserved yeast telomeric junctions" see page 52, left-hand column, last paragraph - page 53, right-hand column, line 9 see page 57, right-hand column, line 13 - line 53 ---	35,104, 106
X	GENES & DEVELOPMENT, vol. 7, July 1993, pages 1146-1159, XP002000587 KYRION, G. ET AL.: "RAP1 and telomere structure regulate telomere position effects in Saccharomyces cerevisiae" cited in the application see the whole document ---	80, 85-87, 90-92, 111
A	GENES AND DEVELOPMENT, (1994 MAY 15) 8 (10) 1133-46, vol. 8, XP002000588 APARICIO, O. & GOTTSCHLING, D.: "Overcoming telomeric silencing: a trans-activator competes to establish gene expression in a cell cycle-dependent way." cited in the application see the whole document ---	80-87
A	CELL, vol. 63, 16 November 1990, NA US, pages 751-762, XP002000589 GOTTSCHLING, D. ET AL.: "Position effect at S.cerevisiae telomeres: reversible repression of pol II transcription" cited in the application see the whole document --- -/--	80-92, 111-113, 121,122

1

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	SCIENCE, (1994 OCT 21) 266 (5184) 404-9, XP002000590 SINGER, M. ET AL.: "TLC1: template RNA component of Saccharomyces cerevisiae telomerase" cited in the application see the whole document	1-4, 10-15, 25-34, 36-43, 61-64, 66,67, 69-74, 80, 86-88, 90-93
P,X	EMBL DATABASE ENTRY YER8_YEAST; ACCESSION NUMBER P40059 , 1 February 1995, XP002000591 see abstract	1-3,9, 23,24, 44,45, 58-60
P,X	EMBL DATABASE ENTRY SCH9986; ACCESSION NUMBER U00027 (VERSION 2), 21 November 1994, XP002000592 see PID:g458906 and nucleotides 7044 to 5951 (reverse strand)	1-3,6, 10-14, 18,30, 45,49-51

1

INTERNATIONAL SEARCH REPORT

ternational application No.
PCT/US95/13801

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. [X] Claims Nos.: 114-120
because they relate to subject matter not required to be searched by this Authority, namely:
Remark: Although claims 114-120 (as far as in vivo methods are concerned) are directed to a method of treatment of (diagnostic method practised on) the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

2. [X] Claims Nos.: 19-20
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:
Reason: In claims 19-20 the reference to SEQ ID 29 is obviously an error. For the purpose of the search it has been interpreted as refering to SEQ ID 19 (see claim 21).

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 searches 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

ormation on patent family members

Internal Application No
PCT/US 95/13801

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO-A-9323572	25-11-93	US-A-	5489508	06-02-96
		AU-B-	4374093	13-12-93
		CA-A-	2135648	25-11-93
		EP-A-	0642591	15-03-95
		JP-T-	8501079	06-02-96