



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification <sup>6</sup> : C12N 15/35, 1/21, A61K 39/42, C12Q 1/68, C07K 16/08, G01N 33/569, C07K 14/015, A61K 39/23</p>	A3	<p>(11) International Publication Number: <b>WO 96/09391</b></p> <p>(43) International Publication Date: 28 March 1996 (28.03.96)</p>
<p>(21) International Application Number: PCT/EP95/03758</p> <p>(22) International Filing Date: 22 September 1995 (22.09.95)</p> <p>(30) Priority Data: 94114973.4 22 September 1994 (22.09.94) EP (34) Countries for which the regional or international application was filed: AT et al.</p> <p>(71)(72) Applicant and Inventor: WOLF, Hans [DE/DE]; Josef-Jägerhuber-Strasse 9, D-82319 Starnberg (DE).</p> <p>(72) Inventors; and (75) Inventors/Applicants (for US only): VON POBLOTZKI, Andreas [DE/DE]; Maximilian-Aschenauer-Strasse 5, D-93059 Regensburg (DE). MODROW, Susanne [DE/DE]; Ringstrasse 14, D-93177 Altenthann (DE). GIGLER, Andreas [DE/DE]; Königswiesenweg 23, D-93051 Regensburg (DE).</p> <p>(74) Agent: VOSSIUS &amp; PARTNER; P.O. Box 86 07 67, D-81634 München (DE).</p>	<p>(81) Designated States: AU, CA, JP, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p><b>Published</b> <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: 29 August 1996 (29.08.96)</p>	
<p>(54) Title: DNA SEQUENCE AND PROTEIN OF THE NON-STRUCTURAL READING FRAME I OF THE HUMAN PARVOVIRUS B19</p>		
<p>(57) Abstract</p> <p>DNA sequences of the human parvovirus B19 genome coding for the non-structural protein, recombinant DNA molecules containing such sequences, antigens coded within these sDNA sequences of the parvovirus B19 genome coding for the non-structural protein sequences, production of those antigens, generation of antibodies or antibody related molecules directed to such antigens, use of these sequences, antigens, antibodies or antibody related molecules for diagnostic, therapeutic or vaccination purposes.</p>		

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INTERNATIONAL SEARCH REPORT

International Application No  
PC1/EP 95/03758

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12N15/35 C12Q1/68 C07K14/015 C12N1/21 C07K16/08  
A61K39/23 A61K39/42 G01N33/569

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 C07K C12N C12Q A61K 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 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.
A	JOURNAL OF VIROLOGY, vol. 62, no. 8, August 1988, pages 2884-2889, XP002005736 KEIYA OZAWA ET AL.: "The gene encoding the nonstructural protein of B19 (human) Parvovirus may be lethal in transfected cells" see abstract see page 2886, left-hand column, paragraph 3 - right-hand column, paragraph 1 see page 2887, right-hand column, paragraph 2 - page 2888, right-hand column, paragraph 2 --- -/--	1,3,5-8

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 95/03758

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>JOURNAL OF VIROLOGY, vol. 58, no. 3, June 1986, pages 921-936, XP002005737 ROSEMARY O. SHADE ET AL.: "Nucleotide sequence and genome organization of human Parvovirus B19 isolated from the serum of a child during aplastic crisis " cited in the application see abstract; figure 2 see page 927, left-hand column, paragraph 2 - right-hand column, paragraph 1 see page 930, right-hand column, paragraph 3; figure 7 see page 934, right-hand column, paragraph 3</p>	1
P,X	<p>--- JOURNAL OF GENERAL VIROLOGY, vol. 76, no. 3, March 1995, READING GB, pages 519-527, XP002005738 ANDREAS VON POBLOTZKI ET AL.: "Antibodies to parvovirus B19 NS-1 protein in infected individuals" see abstract see page 521, right-hand column, paragraph 4 - page 524, left-hand column, paragraph 1 see page 525, left-hand column, paragraph 3 - page 526, left-hand column, paragraph 1 see page 526, left-hand column, last paragraph</p>	1-16
P,X	<p>--- JP,A,07 147 986 (DENKA SEIKEN KK) 13 June 1995 see page 9 - page 10 -----</p>	7,8

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PL 1/EP 95/03758

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP-A-7147986	13-06-95	NONE	